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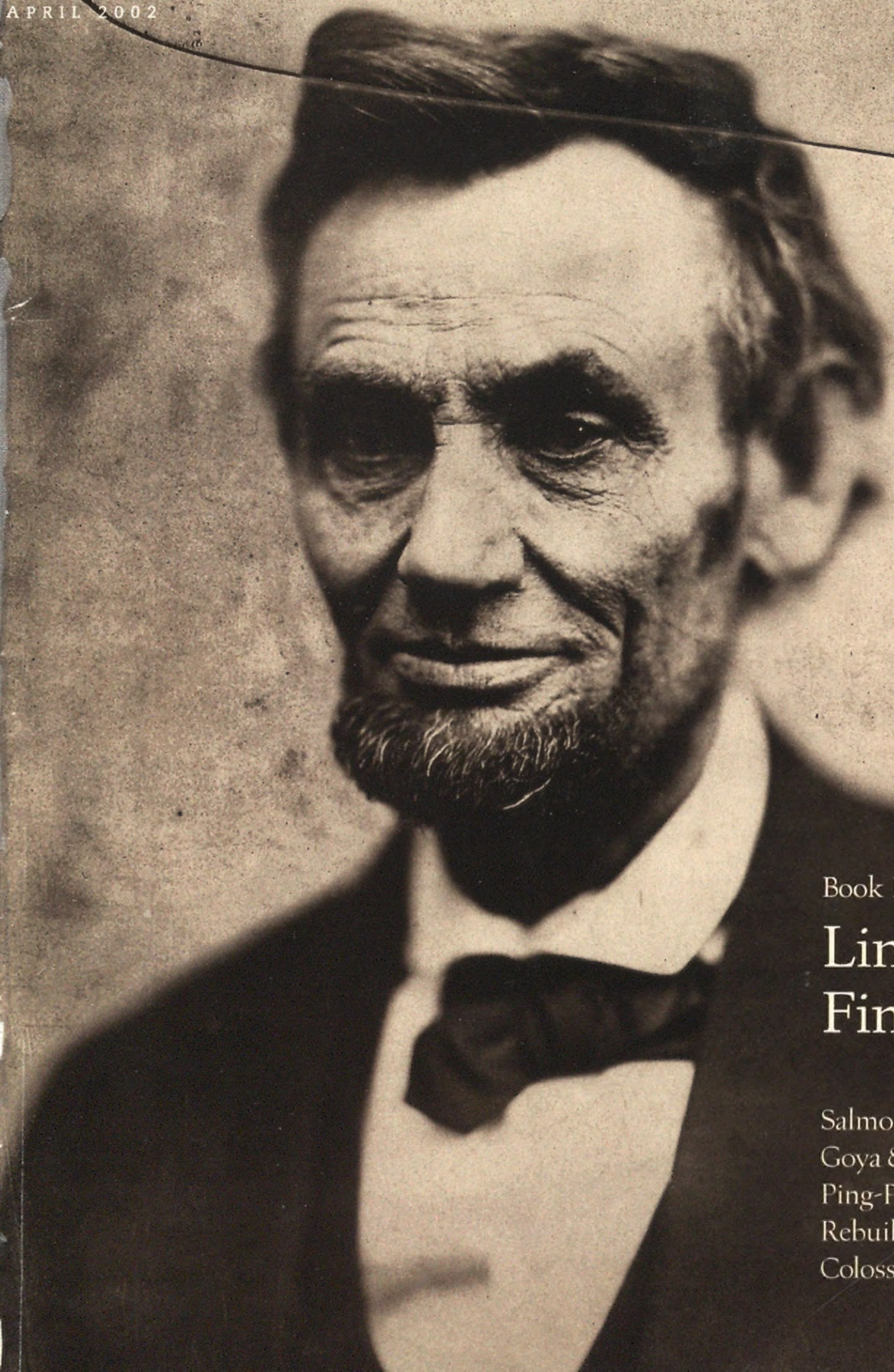
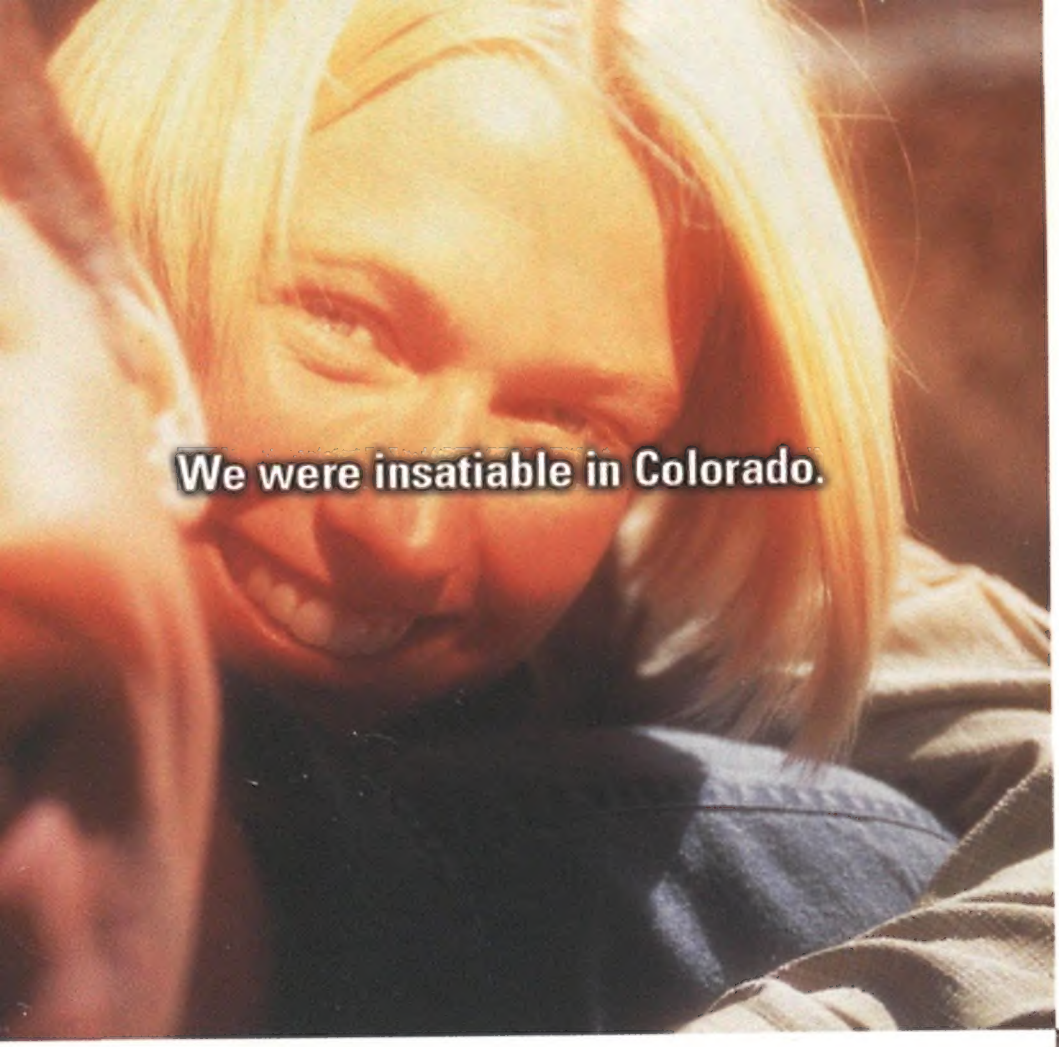


Book Excerpt:

Lincoln's Finest Hour

Salmon Murder Mystery
Goya & His Women
Ping-Pong Diplomats
Rebuilding Thoreau's Cabin
Colossal Cave Crystals



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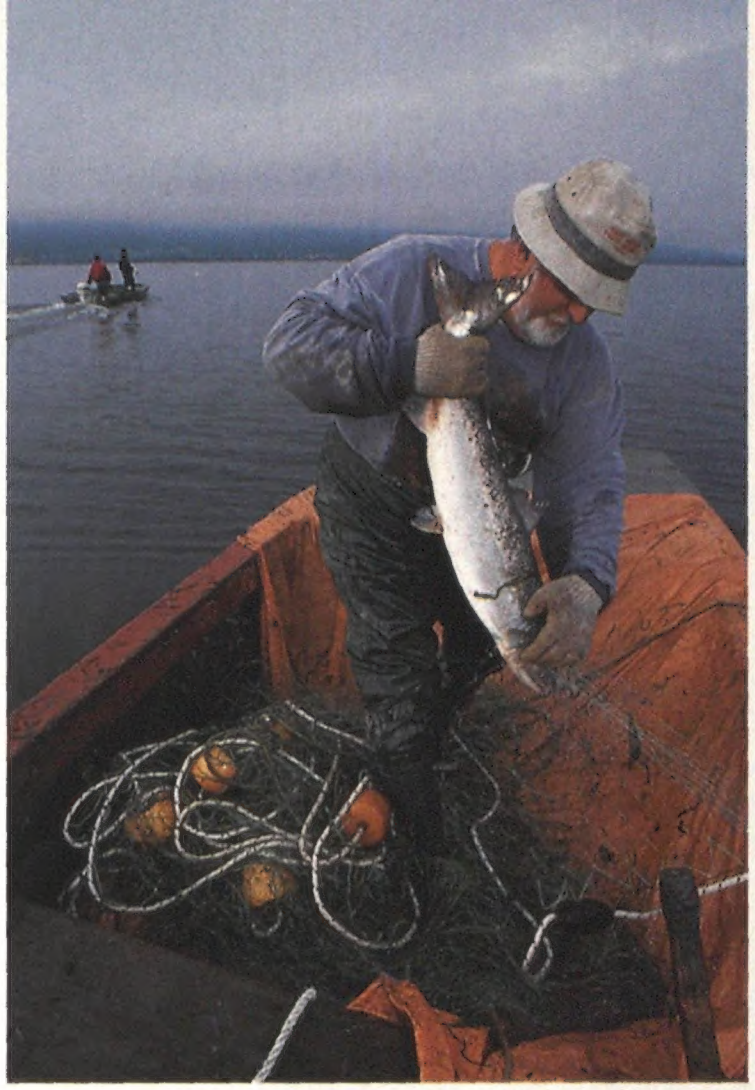

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From top: Mi'gmaq tribe member Simon Dedam fishes for Atlantic salmon in Quebec; Edward Burtynsky's *Shipbreaking #27 With Cutter*, 2001; Francisco Goya's *Antonia Zárate*, 1811.

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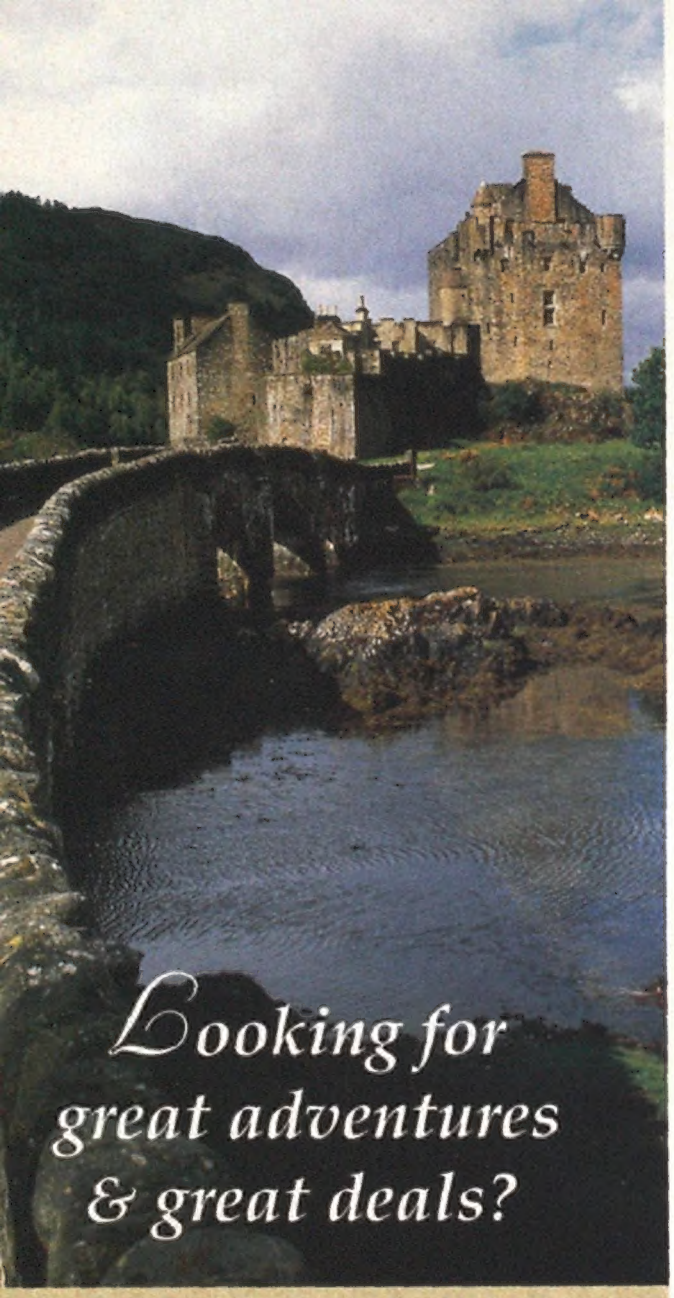

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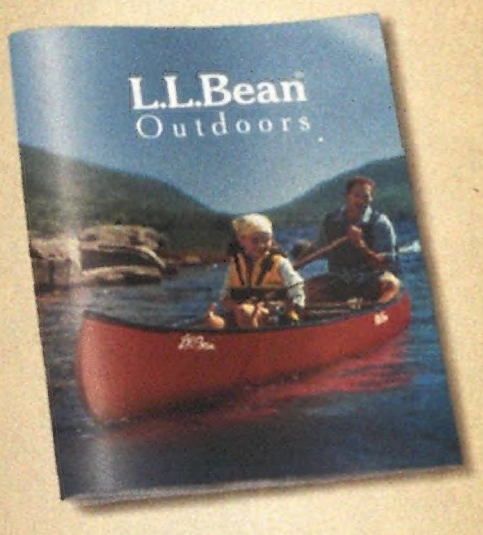

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BY CAREY WINFREY, EDITOR

As I write, it is almost March and the cherry trees will soon be gloriously abloom here in the nation's capital. But I digress. The point is that the morning mail brought letters posted in October and November. They

It's not such a hot idea to send us slides and other meltables through the mail.

were as yellow and brittle as old parchment. A few actually broke in my hands. Slides in holders like the one above were deformed. All this mail had been to Lima, Ohio, to be irradiated.

Like many in Washington, we at Smithsonian are still suffering from the effects of last fall's anthrax fright. Washington's Brentwood post office, which served the magazine for many years, was closed indefinitely after two postal workers died following exposure to anthrax. As a precaution, since October, the U.S. Postal Service has routed Brentwood's mail to Ohio to be zapped. (Fear not, the magazine itself is mailed to subscribers directly from our printing plant in Effingham, Illinois.)

Because our mail now comes to us through a different post office, we have a new address, which all correspondents should use until further notice:

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Letters written with publication in mind should be addressed to the Letters Editor. Queries and manuscripts from writers should be sent to the Articles Editor. (Alas, we cannot assume responsibility for unsolicited materials—we receive between 10,000 and 12,000 queries and manuscripts each year—though we will try to be as responsible as possible. Please include a self-addressed, stamped envelope and copies of your previously published work.) Do not send photographs, particularly slides—and certainly not originals—through the mail.

Letters about or to the Smithsonian Institution should be sent directly to the Visitor Information and Associates' Reception Center (a.k.a. VIARC) Public Inquiry Mail Service MRC 010, P.O. Box 37012, Washington, D.C. 20013-7012.

We welcome all of the 7,000 or more letters we get each year. And we apologize if you wrote to us in the past few months and have yet to get a response. We have a good excuse.

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Cartwheels at 50

FROM THE SECRETARY

TO THE SHORT LIST OF THINGS THAT REALLY DO GET better with age, add the Smithsonian Institution Traveling Exhibition Service, the largest such service in the world. SITES turns 50 this year, and it could probably turn cartwheels as well. It's as vigorous and fleet as its acronym. More important, it's one of the Smithsonian's principal means of reaching people all across America. Through SITES, the Smithsonian sets up shop in cities and towns large and small and brings them a valued portion of itself.

SITES began in 1952—a time when disruptions caused by World War II were still being felt—with a different mission: placing exhibitions, mostly from abroad, in American museums. The first stirrings of transformation came with the celebration of the American bicentennial in the mid-1970s. It brought renewed attention to the Smithsonian's own resources—to the boundless store of objects in our care that speak so authentically to this nation's history. When the Smithsonian sent a selection of those objects out to tour America for the bicentennial, it established a new model for SITES: homegrown traveling exhibitions devised specifically to share the material and intellectual riches of the Institution. A fundamental shift had begun. The gates opened, and one of the Smithsonian's most adventurous programs took flight.

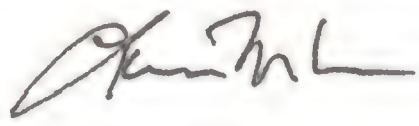
Lunch bunch: metal madeleines for baby boomers.

SITES shows are of two general types and many gradations of scale: re-creations of Smithsonian museum exhibitions, and those built just for the road, born to wander and enrich. The shows are made to go just about anywhere, from museums and historical societies to libraries, community centers, zoos, aquariums, shopping malls, barns, trucks and any other venue to which audiences have easy access. For SITES personnel, there's no such thing as a remote corner of the nation. The program's guiding spirits might well be Lewis and Clark.

Each SITES exhibition is a complete package—artifacts, photographs, publications, interpretive information, educational resources—and the components are done to standards set by curators and other scholars. The shows are designed to entertain as well as to inform, and there is abundant evidence of their success. But time and again they've had an additional happy consequence: many visitors drawn to the local host institutions, perhaps for the first time, by the Smithsonian name return again and again long after the SITES exhibition has packed up and moved on.

Some 50 SITES exhibitions will be available over the next several years, and their subject matter is as various as the Smithsonian itself: the American experience, fossils and flight, film and theater, art and music, work and leisure, ethnic diversity, gardens and social change. Weighty topics are to be expected: there's a new traveling version of our major exhibition on the American Presidency in the National Museum of American History. But SITES keeps an eye out for the offbeat and fanciful as well: "Lunch Box Memories" salutes the 20th-century history of the American school lunch box, that metal madeleine with the power to turn purposeful grown-ups into carefree kids again. On the boxes' colored surfaces one can trace the rise and fall of cultural heroes, from Hopalong Cassidy to Rambo, and read the passing fancies of an age.

The experience of viewing Smithsonian exhibitions in distant and sometimes unconventional settings is necessarily different from the physical experience on-site in Washington. But every Smithsonian display, no matter how grand or compact or where set down, is informed by the same spirit of intellectual curiosity, the same commitment to inquiry, explanation and connection. That spirit can loom all the larger in a local space. With every exhibition it imagines and conveys, SITES is helping to build a Smithsonian that more fully encompasses America.



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FOR ACEQUIA'S SAKE

PEOPLE WHO LIVE AROUND THE acequias ("Digging Ditches," February 2002) should stand by their guns. If they don't, the snobs and the rich people will continue to ruin the land and steal the water for their golf courses.

Teresa Finley
Tucson, Arizona

IT IS CLEAR THAT IN THE DESERT, water is the most precious commodity. People trade food, land and water. There is nothing particularly odd here, nor in the rapid changes in New Mexico.

Mark Jansen
Houston, Texas

WE HAVE AN ACTIVE ACEQUIA AT La Purisima Mission State Historic Park in Lompoc, California. The acequia was engineered by the Spaniards in the late 1700s.

Anna L. Pearman
Santa Maria, California

OH, THAT BLOOMINGTON

"CRISIS AT CENTRAL HIGH" WAS A fine tribute to my friend Will Counts, the news photographer who documented the civil rights struggle. But the Bloomington where he worked as a photojournalism professor and where he died is in Indiana, not Illinois.

Virginia L. Rose
Bloomington, Indiana

FUTURE SHOCK

THE HOUSE OF THE FUTURE [BUILT at Disneyland in 1957] may have seemed dated when it was dismantled in 1968, but it had staying power. The one-day demolition project turned into six days when the wrecking ball bounced off the building's plastic exterior and the crew had to resort to crowbars and saws to hack the structure to pieces. We could use more buildings like that here in earthquake country.

Ron Fornator
Blue Jay, California

HOCKNEY'S LENSES

DAVID HOCKNEY'S CLAIM THAT MANY old masters used lenses and projected images to create their works was not the least bit startling to artists who use photo reference materials in painting. As an art student in the early 1970s, I was introduced to the camera obscura and studied Vermeer's "circles of confusion" in his reflected surfaces as evidence of his use

of an optical device. I am delighted to see the purist approach to realism debunked by Mr. Hockney's research into this subject. In art, the end always justifies the means.

Beth Connolly
Olympia, Washington

THANKS TO DAVID HOCKNEY FOR rattling the cages of preconceived notions among art critics and historians. But his theories hardly amount to "lost trade secrets." The optical device that he experimented with has been my constant companion during my five decades as a commercial artist.

Charles L. Hansen
Louisville, Kentucky

I AM ONE OF THE SCIENTISTS WHO was at the December 2001 art and optics symposium and analyzed David Hockney's intriguing theory. "Mirror Images" did not point out that murals, ceilings, self-portraits, moving objects and nonexistent objects (e.g., dragons) cannot be recorded by that method; or that virtually all observable brush strokes are "downward," contradicting the claim that the paintings were at least partially executed upside down. Caravaggio would have needed more than 1,000 candles to project images in the cave where he worked. Such considerations argue against David Hockney's theory.

David G. Stork, PhD
Chief Scientist, Ricoh Innovations
Menlo Park, California

GRANTS AND GRUNTS

"ANY BONDS TODAY?" HIGHlighted the contributions of artists to the war effort. The University of Minnesota Libraries and the Minneapolis Public Library, which hold extensive collections of war posters, have received a grant from the Institute of Museum and Library Services to digitize 6,000 images from World War I and World War II. Portions of the collection are on-line at http://digital.lib.umn.edu/warposters/warpost.html.

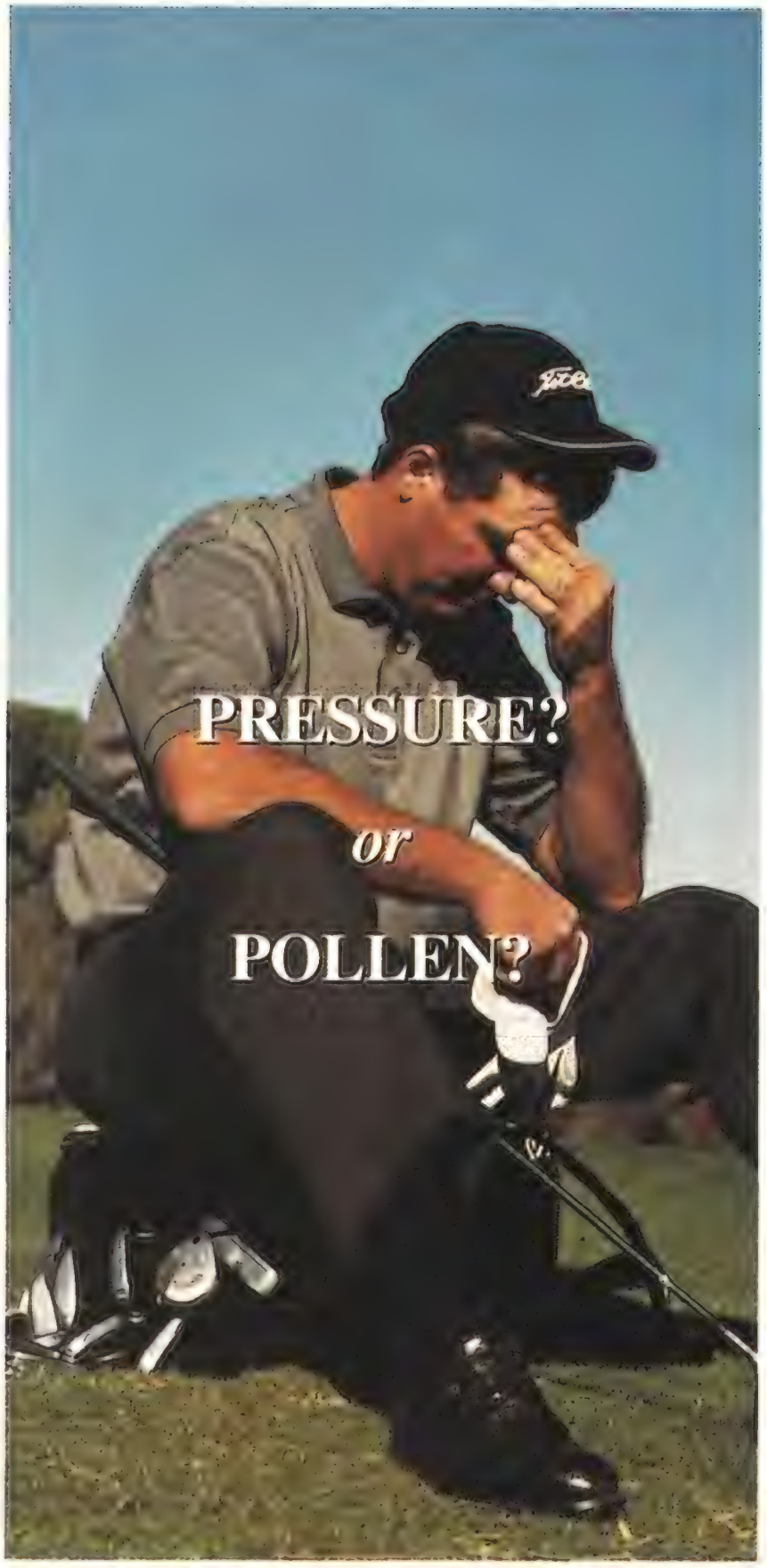
Chuck Thomas
University of Minnesota Libraries
Minneapolis, Minnesota

KING NEPTUNE, AUCTIONED TO RAISE money for the war effort, was, strictly speaking, not a pig. After the domestic swine reaches 120 pounds, it is a hog.

Ken Signor
Lodi, Ohio

COURTING TROUBLE

JONATHAN KANDELL WRITES THAT after Boss Tweed was arrested in 1871, many of his seven remaining years of life were spent in jail. In 1875, Tweed escaped custody in New York during



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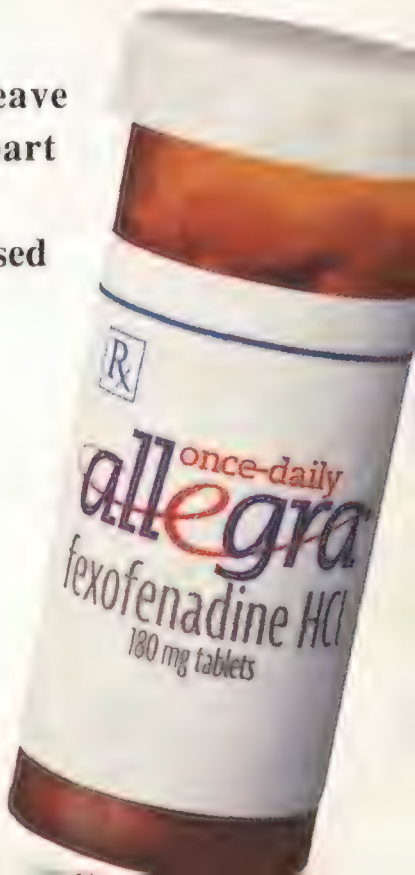

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Please see additional important information on next page.

Brief Summary of Prescribing Information as of November 2000

ALLEGRA®

(fexofenadine hydrochloride)

Capsules and Tablets

INDICATIONS AND USAGE

Seasonal Allergic Rhinitis

ALLEGRA is indicated for the relief of symptoms associated with seasonal allergic rhinitis in adults and children 6 years of age and older. Symptoms treated effectively were sneezing, rhinorrhea, itchy nose/palate/throat, itchy/watery/red eyes.

Chronic Idiopathic Urticaria

ALLEGRA is indicated for treatment of uncomplicated skin manifestations of chronic idiopathic urticaria in adults and children 6 years of age and older. It significantly reduces pruritus and the number of wheals.

CONTRAINDICATIONS

ALLEGRA is contraindicated in patients with known hypersensitivity to any of its ingredients.

PRECAUTIONS

Drug Interaction with Erythromycin and Ketoconazole

Fexofenadine hydrochloride has been shown to exhibit minimal (ca. 5%) metabolism. However, co-administration of fexofenadine hydrochloride with ketoconazole and erythromycin led to increased plasma levels of fexofenadine hydrochloride. Fexofenadine hydrochloride had no effect on the pharmacokinetics of erythromycin and ketoconazole. In two separate studies, fexofenadine hydrochloride 120 mg twice daily (two times the recommended twice daily dose) was co-administered with erythromycin 500 mg every 8 hours or ketoconazole 400 mg once daily under steady-state conditions to normal, healthy volunteers (n=24, each study). No differences in adverse events or QT_c interval were observed when patients were administered fexofenadine hydrochloride alone or in combination with erythromycin or ketoconazole. The findings of these studies are summarized in the following table:

Effects on steady-state fexofenadine hydrochloride pharmacokinetics after 7 days of co-administration with fexofenadine hydrochloride 120 mg every 12 hours (two times the recommended twice daily dose) in normal volunteers (n=24)

Concomitant Drug	*C_{maxSS} (Peak plasma concentration)*	*$AUC_{SS(0-12h)}$ (Extent of systemic exposure)*
Erythromycin (500 mg every 8 hrs)	+82%	+109%
Ketoconazole (400 mg once daily)	+135%	+164%

The changes in plasma levels were within the range of plasma levels achieved in adequate and well-controlled clinical trials.

The mechanism of these interactions has been evaluated in *in vitro*, *in situ*, and *in vivo* animal models. These studies indicate that ketoconazole or erythromycin co-administration enhances fexofenadine gastrointestinal absorption. *In vivo* animal studies also suggest that in addition to increasing absorption, ketoconazole decreases fexofenadine hydrochloride gastrointestinal secretion, while erythromycin may also decrease biliary excretion.

Drug Interactions with Antacids

Administration of 120 mg of fexofenadine hydrochloride (2 x 60 mg capsule) within 15 minutes of an aluminum and magnesium containing antacid (Maalox®) decreased fexofenadine AUC by 41% and C_{max} by 43%. ALLEGRA should not be taken closely in time with aluminum and magnesium containing antacids.

Carcinogenesis, Mutagenesis, Impairment of Fertility

The carcinogenic potential and reproductive toxicity of fexofenadine hydrochloride were assessed using terfenadine studies with adequate fexofenadine hydrochloride exposure (based on plasma area-under-the-concentration vs. time [AUC] values). No evidence of carcinogenicity was observed in an 18-month study in mice and in a 24-month study in rats at oral doses up to 150 mg/kg of terfenadine (which led to fexofenadine exposures that were respectively approximately 3 and 5 times the exposure from the maximum recommended daily oral dose of fexofenadine hydrochloride in adults and children).

In *in vitro* (Bacterial Reverse Mutation, CHO/HGPRT Forward Mutation, and Rat Lymphocyte Chromosomal Aberration assays) and *in vivo* (Mouse Bone Marrow Micronucleus assay) tests, fexofenadine hydrochloride revealed no evidence of mutagenicity.

In rat fertility studies, dose-related reductions in implants and increases in postimplantation losses were observed at an oral dose of 150 mg/kg of terfenadine (which led to fexofenadine hydrochloride exposures that were approximately 3 times the exposure of the maximum recommended daily oral dose of fexofenadine hydrochloride in adults).

Pregnancy

Teratogenic Effects: Category C. There was no evidence of teratogenicity in rats or rabbits at oral doses of terfenadine up to 300 mg/kg (which led to fexofenadine exposures that were approximately 4 and 31 times, respectively, the exposure from the maximum recommended daily oral dose of fexofenadine in adults). There are no adequate and well controlled studies in pregnant women. Fexofenadine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nonteratogenic Effects. Dose-related decreases in pup weight gain and survival were observed in rats exposed to an oral dose of 150 mg/kg of terfenadine (approximately 3 times the maximum recommended daily oral dose of fexofenadine hydrochloride in adults based on comparison of fexofenadine hydrochloride AUCs).

Nursing Mothers

There are no adequate and well-controlled studies in women during lactation. Because many drugs are excreted in human milk, caution should be exercised when fexofenadine hydrochloride is administered to a nursing woman.

Pediatric Use

The recommended dose in patients 6 to 11 years of age is based on cross-study comparison of the pharmacokinetics of ALLEGRA in adults and pediatric patients and on the safety profile of fexofenadine hydrochloride in both adult and pediatric patients at doses equal to or higher than the recommended doses.

The safety of ALLEGRA tablets at a dose of 30 mg twice daily has been demonstrated in 438 pediatric patients 6 to 11 years of age in two placebo-controlled 2-week seasonal allergic rhinitis trials. The safety of ALLEGRA for the treatment of chronic idiopathic urticaria in patients 6 to 11 years of age is based on cross-study comparison of the pharmacokinetics of ALLEGRA in adult and pediatric patients and on the safety profile of fexofenadine in both adult and pediatric patients at doses equal to or higher than the recommended dose.

The effectiveness of ALLEGRA for the treatment of seasonal allergic rhinitis in patients 6 to 11 years of age was demonstrated in one trial (n=411) in which ALLEGRA tablets 30 mg twice daily significantly reduced total symptom scores compared to placebo, along with extrapolation of demonstrated efficacy in patients ages 12 years and above, and the pharmacokinetic comparisons in adults and children. The effectiveness of ALLEGRA for the treatment of chronic idiopathic urticaria in patients 6 to 11 years of age is based on an extrapolation of the demonstrated efficacy of ALLEGRA in adults with this condition and the likelihood that the disease course, pathophysiology and the drug's effect are substantially similar in children to that of adult patients.

The safety and effectiveness of ALLEGRA in pediatric patients under 6 years of age have not been established.

Geriatric Use

Clinical studies of ALLEGRA tablets and capsules did not include sufficient numbers of subjects aged 65 years and over to determine whether this population responds differently from younger patients. Other reported clinical experience has not identified differences in responses between the geriatric and younger patients. This drug is known to be substantially excreted by the kidney, and the risk of toxic reactions to this drug may be greater in patients with impaired renal function. Because elderly patients are more likely to have decreased renal function, care should be taken in dose selection, and may be useful to monitor renal function. (See CLINICAL PHARMACOLOGY)

ADVERSE REACTIONS

Seasonal Allergic Rhinitis

Adults. In placebo-controlled seasonal allergic rhinitis clinical trials in patients 12 years of age and older, which included 2461 patients receiving fexofenadine hydrochloride capsules at doses of 20 mg to 240 mg twice daily, adverse events were similar in fexofenadine hydrochloride and placebo-treated patients. All adverse events that were reported by greater than 1% of patients who received the recommended daily dose of fexofenadine hydrochloride (60 mg capsules twice daily), and that were more common with fexofenadine hydrochloride than placebo, are listed in Table 1.

In a placebo-controlled clinical study in the United States, which included 570 patients aged 12 years and older receiving fexofenadine hydrochloride tablets at doses of 120 or 180 mg once daily, adverse events were similar in fexofenadine hydrochloride and placebo-treated patients. Table 1 also lists adverse experiences that were reported by greater than 2% of patients treated with fexofenadine hydrochloride tablets at doses of 180 mg once daily and that were more common with fexofenadine hydrochloride than placebo. The incidence of adverse events, including drowsiness, was not dose-related and was similar across subgroups defined by age, gender, and race.

Table 1

Adverse experiences in patients ages 12 years and older reported in placebo-controlled seasonal allergic rhinitis clinical trials in the United States

Twice daily dosing with fexofenadine capsules at rates of greater than 1%

Adverse experience	*Fexofenadine 60 mg Twice Daily (n=679)*	*Placebo Twice Daily (n=671)*
Viral Infection (cold, flu)	2.5%	1.5%
Nausea	1.6%	1.5%
Dysmenorrhea	1.5%	0.3%
Drowsiness	1.3%	0.9%
Dyspepsia	1.3%	0.6%
Fatigue	1.3%	0.9%

Once daily dosing with fexofenadine hydrochloride tablets at rates of greater than 2%

Adverse experience	*Fexofenadine 180 mg once daily (n=283)*	*Placebo (n=293)*
Headache	10.6%	7.5%
Upper Respiratory Tract Infection	3.2%	3.1%
Back Pain	2.8%	1.4%

The frequency and magnitude of laboratory abnormalities were similar in fexofenadine hydrochloride and placebo-treated patients.

Pediatric. Table 2 lists adverse experiences in patients aged 6 to 11 years of age which were reported by greater than 2% of patients treated with fexofenadine hydrochloride tablets at a dose of 30 mg twice daily in placebo-controlled seasonal allergic rhinitis studies in the United States and Canada that were more common with fexofenadine hydrochloride than placebo.

Table 2

Adverse experiences reported in placebo-controlled seasonal allergic rhinitis studies in pediatric patients ages 6 to 11 in the United States and Canada at rates of greater than 2%

Adverse experience	*Fexofenadine 30 mg twice daily (n=209)*	*Placebo (n=229)*
Headache	7.2%	6.6%
Accidental Injury	2.9%	1.3%
Coughing	3.8%	1.3%
Fever	2.4%	0.9%
Pain	2.4%	0.4%
Otitis Media	2.4%	0.0%
Upper Respiratory Tract Infection	4.3%	1.7%

Chronic Idiopathic Urticaria

Adverse events reported by patients 12 years of age and older in placebo-controlled chronic idiopathic urticaria studies were similar to those reported in placebo-controlled seasonal allergic rhinitis studies. In placebo-controlled chronic idiopathic urticaria clinical trials, which included 726 patients 12 years of age and older receiving fexofenadine hydrochloride tablets at doses of 20 to 240 mg twice daily, adverse events were similar in fexofenadine hydrochloride and placebo-treated patients. Table 3 lists adverse experiences in patients aged 12 years and older which were reported by greater than 2% of patients treated with fexofenadine hydrochloride 60 mg tablets twice daily in controlled clinical studies in the United States and Canada and that were more common with fexofenadine hydrochloride than placebo. The safety of fexofenadine hydrochloride in the treatment of chronic idiopathic urticaria in pediatric patients 6 to 11 years of age is based on the safety profile of fexofenadine hydrochloride in adults and adolescent patients at doses equal to or higher than the recommended dose (see Pediatric Use).

Table 3

Adverse experiences reported in patients 12 years and older in placebo-controlled chronic idiopathic urticaria studies in the United States and Canada at rates of greater than 2%

Adverse experience	*Fexofenadine 60 mg twice daily (n=186)*	*Placebo (n=178)*
Back Pain	2.2%	1.1%
Sinusitis	2.2%	1.1%
Dizziness	2.2%	0.6%
Drowsiness	2.2%	0.0%

Events that have been reported during controlled clinical trials involving seasonal allergic rhinitis and chronic idiopathic urticaria patients with incidences less than 1% and similar to placebo and have been rarely reported during postmarketing surveillance include: insomnia, nervousness, and sleep disorders or paronina. In rare cases, rash, urticaria, pruritus and hypersensitivity reactions with manifestations such as angioedema, chest tightness, dyspnea, flushing and systemic anaphylaxis have been reported.

OVERDOSAGE

Reports of fexofenadine hydrochloride overdose have been infrequent and contain limited information. However, dizziness, drowsiness, and dry mouth have been reported. Single doses of fexofenadine hydrochloride up to 800 mg (six normal volunteers at this dose level), and doses up to 690 mg twice daily for 1 month (three normal volunteers at this dose level) or 240 mg once daily for 1 year (234 normal volunteers at this dose level) were administered without the development of clinically significant adverse events as compared to placebo.

In the event of overdose, consider standard measures to remove any unabsorbed drug. Symptomatic and supportive treatment is recommended.

Hemodialysis did not effectively remove fexofenadine hydrochloride from blood (1.7% removed) following terfenadine administration.

No deaths occurred at oral doses of fexofenadine hydrochloride up to 5000 mg/kg in mice (110 times the maximum recommended daily oral dose in adults and 200 times the maximum recommended daily oral dose in children based on mg/m^2) and up to 5000 mg/kg in rats (230 times the maximum recommended daily oral dose in adults and 400 times the maximum recommended daily oral dose in children based on mg/m^2). Additionally, no clinical signs of toxicity or gross pathological findings were observed. In dogs, no evidence of toxicity was observed at oral doses up to 2000 mg/kg (300 times the maximum recommended daily oral dose in adults and 530 times the maximum recommended daily oral dose in children based on mg/m^2).

Prescribing Information as of November 2000

Aventis Pharmaceuticals Inc.
Kansas City, MO 64137 USA

US Patents 4,254,129; 5,375,693; 5,578,610

www.allegra.com

allb1100Aa

ALG-JA-232-1

one of his permitted daily family visits. The State Department cabled the American chargé d'affaires in Madrid, Alvey Adee, that Tweed was reportedly on a ship bound for Spain. Adee gave the Spanish authorities a Thomas Nash cartoon of Tweed; the likeness was sufficient for them to arrest Tweed. There was no extradition treaty between the two countries. Adee convinced Spanish authorities to return Tweed to the United States.

Peter Bridges
Ambassador, retired
Crested Butte, Colorado

CONTRARY TO THE STATEMENT IN "Boss" that the Tweed Courthouse has not been used as a court since 1926, it was the City Court of New York until 1961. I appeared there many times in the early days of my law practice.

Robert Conrad
New York, New York

SIGN OF THE TIMES

WHEN ANSEL ADAMS SHOT *MOONRISE, Hernandez, New Mexico*, he was returning from a visit with Georgia O'Keeffe at Abiquiu. We made that same drive a few years ago. At Hernandez, a huge No Photographs sign had been posted. We can all be glad it was not there when Adams drove by.

Bruce H. Hasenkamp
Hillsborough, California

Send letters for this column to LettersEd@simag.si.edu or to Letters Editor, SMITHSONIAN, P.O. Box, 37021, MRC 951, Washington, D.C. 20013-7012. Letters should include your telephone number and address and may be edited for clarity and length. Send queries and comments about the Smithsonian Institution to info@info.si.edu or to VIARC, Public Inquiry Mail Service, P.O. Box 37012, Washington, D.C. 20013-7012.

INDELIBLE IMAGES

Shades of Merriment

ROBERT CAPA, FAMOUS FOR HIS BATTLE PHOTOGRAPHS, MADE FRIENDS ALONG THE WAY

Françoise Gilot, 26, Pablo Picasso, 66, and Picasso's nephew Javier Vilato, 26, frolic on a French beach.

ROBERT CAPA

A BAREFOOT PABLO PICASSO HOLDS A GIANT UMBRELLA FOR HIS YOUNG LOVER, Françoise Gilot, shading her from the blazing Riviera sunshine. They are on the beach in Golfe-Juan, France, in August 1948. He is 66; she, 26. A nephew of Picasso's grins at this mock procession in which the great man plays the minion. The photograph, by the renowned Robert Capa (age 40, left), appears in a new collection of his work, and still draws us in with its beauty, humor and irony.

Picasso and Gilot had met five years before, in Paris during the German occupation. She, too, was a painter. Picasso laughed. "Girls who look like that can't be painters," he said. The two saw each other in secret for more than a year—he was estranged from his wife, Olga Khokhlova, but had yet to split with his other lovers—before she moved in with him. They had a son, Claude, now an entrepreneur, and a daughter, Paloma, the jewelry designer.

"There are two kinds of women," Picasso liked to say, "Goddesses and doormats." Gilot evidently tired of both roles. She left him after a decade, then angered him again by publishing a memoir, *Life with Picasso*, that was not wholly flattering. This famed artist, who pioneered Cubism and became one of the 20th century's most important figures, could be cruel and small-minded; he even upbraided her for giving his threadbare clothes to the gardener.

Picasso, who died in 1973 at age 91, had several wives and companions, but unlike the others, Gilot flourished after breaking with him. In 1970, she married Dr. Jonas Salk, inventor of a polio vaccine and later an AIDS researcher, and remained with him until his death seven years ago. Today, at age 80, she lives in New York City and Paris. She works on behalf of the Salk Institute, the medical research facility in La Jolla, California. And her paintings continue to be shown in museums and galleries around the world.

She had met Capa in Paris in 1945. The Hungarian-born photographer had already taken his most famous picture in Spain in 1936, during the civil war. *Falling Soldier* captures the moment a loyalist is shot and killed. "If your pictures aren't good enough," he often said, "you're not close enough." It was also in Spain that the love of his life, Gerda Taro, was killed covering the Battle of Brunete.

In World War II, Capa landed with U.S. forces at Normandy, leading to one of photojournalism's most notorious mishaps: all but 11 of his negatives from the landing were ruined when a harried darkroom technician left them in an overheated film dryer. In 1947 Capa founded, with several of the best photojournalists of the day, the photo agency Magnum. Capa was killed in 1954, at age 40, when he stepped on a land mine in what was then called Indochina, covering the war between France and its former colony for *Life* magazine.

Last year Phaidon Press published *Robert Capa: the Definitive Collection*, edited by his biographer, Richard Whelan, with help from Capa's brother Cornell, himself a photographer and the founder of the International Center for Photography in New York. With more than 900 images, the book shows Capa to be a master of immediacy, whether on the battlefield, in the street—or on the beach.

He was on assignment for the British magazine *Illustrated* when he went to the south of France to photograph Gilot and Picasso, whom he also knew. "We were clowning," Gilot recalled of that day 53 years ago. "Capa was a friend, so it was not formal at all. He took the picture in the spirit of the moment." And so we see Picasso not as an ogre or even a genius but as a lover enjoying a summer day.

Gilot (at 73 in 1995, demonstrating a sense of humor very much intact) married polio vaccine inventor Dr. Jonas Salk in 1970.

HULTON ARCHIVE/GETTY IMAGES; TIMOTHY GREENFIELD-SANDERS

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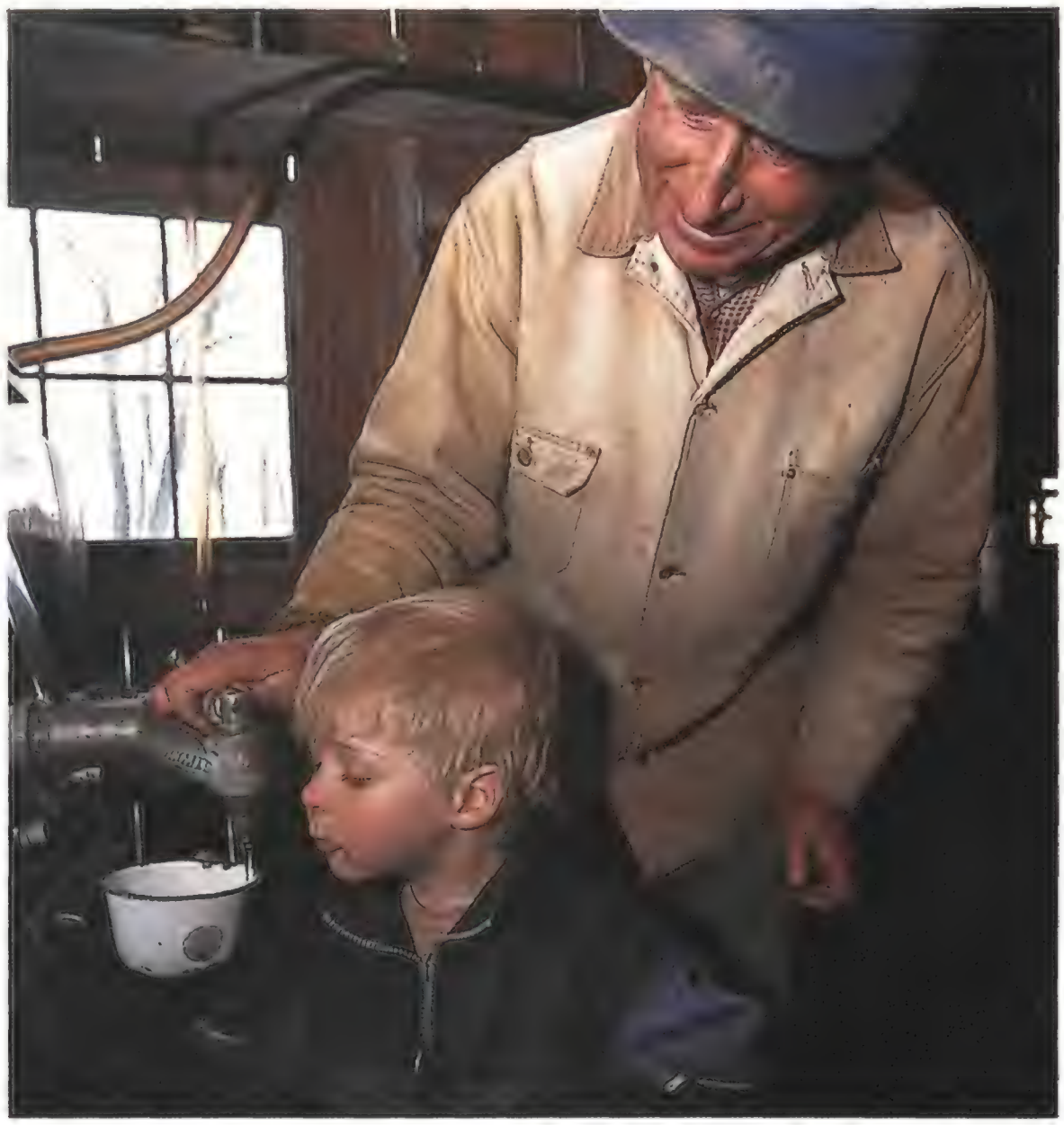
POINTS OF INTEREST

Sweet Taste of Spring

THE SEASON'S FIRST SAP MAKES THE FINEST MAPLE SYRUP—BUT NOT WITHOUT SOME BACKBREAKING LABORS OF LOVE

BY CHRIS GRANSTROM



"He drinks it right down, cup after cup," says Gordon Richardson of his 3-year-old grandson, Emory. The syrup is still warm from boiling.

FOR GENERATIONS OF RURAL VERmonters, the sound of sap dripping into galvanized metal buckets signaled the beginning of the end of winter. By now, most of those buckets, hung on maple trees, have been supplanted by plastic tubes snaking through the woods, but making maple syrup—"sugaring," it's called—remains the premier rite of spring in the Green Mountain State. Some sugar-makers even manage to make a little money at it. Gordon Richardson, who helps run a 450-acre dairy farm in Hartland, is one of them.

On a fine March morning, Gordon goes from tree to tree drilling a small hole in each, and I hammer a plastic spout into every hole Gordon makes. The snow is three feet deep, but our snowshoes keep us on top. Once, Gordon catches himself starting to drill a hole at a level somewhat above his eyes. He smiles at his own near mistake. "Come back to pull that spout when the snow's gone," he says, "and we'd need a ladder to reach it."

At 59, Gordon has never worked anywhere else. Four generations of Richardsons live on this farm. They include Gordon, his brother, Jim, their mother, Veneita, 85, Gordon's son Scott and his wife, Amy, and their boys, Ezra, 5, Emory, 3, and Elliott, 11 months.

The Richardson farm does not have a single acre of flat land, which makes it tough for growing hay, but one compensation is a hilltop with a view that stretches to New Hampshire. Just down from the crest of this hill is the highest stand of the 6,000 maple trees the Richardsons tap. In a good year, the trees yield 80,000 gallons of sap, but that's unusual, because the sugaring season is short and notoriously unreliable. It begins with the first thaws of March and ends in mid-April, when the leaf buds swell and the sap turns bitter.

Winter this year lingers beyond all notions of decency. It isn't until early April that a spell of sunny days and frosty nights finally gets the sap running. When I go back to help collect some buckets hanging from the Richardsons' trees, Jim drives the big John Deere tractor with chains on the tires, and the workers ride behind in the wagon with the sap tanks. We pull out of the barnyard and go up through patches of woods and white meadows. The sun and the snow are dazzling. Judging by the high spirits of the crew, you might think we're out for a picnic.

ALL: PAUL O. BOISVERT

KUNA YALA, SAN BLAS ARCHIPELAGO

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"You have to boil all night in the sugarhouse" to keep up with the flow, says Gordon, "or the sap would run onto the ground. You can't make money that way."

We get over that soon enough. There's so much hopping on and off the wagon that it isn't practical to wear snowshoes, so we have to wallow through the knee-deep snow to the trees and then wallow back carrying buckets full of sap. By late afternoon, we've poured hundreds of gallons into the wagon tanks, and our happy chatter has long since dried up. Finally, it's time to head back.

Down we go, past 50 cords of firewood, cut, split and stacked; past the manure piled high in a field; past wrapped bales of hay that were cut last summer from these very hills; past the barn full of Jersey cows munching on some of that hay; past Ezra and Emory, hard at work in the farmyard with their toy bulldozers; past the old farmhouse and on up to the sugarhouse to unload. I open a valve on the wagon, and sap gushes into a holding tank.

Once it gets to the sugarhouse, the sap is boiled down in the evaporator. It takes 40 gallons to make just one gallon of syrup, and it takes those 50 cords of firewood we pass on the way down to keep the evaporator fueled all season long.

The evaporator is an enormous, gleaming contraption, 6 feet wide, 18 feet long, 9 feet tall. To get it going, Gordon holds a match to some crumpled newspaper in the firebox, adds kindling, then tosses in an armful of wood. The fire crackles fiercely, and soon the sap in the open pan on top of the evaporator starts bubbling.

Jim assembles the syrup filter. A few minutes later, Anita Richardson, Gordon and Jim's sister, gets an empty ten-gallon milk can ready to be filled. Outside, the clouds of steam pouring out of the sugarhouse's cupola are so thick that shadows darken the snowbanks. The steam is a signal for relatives and neighbors to come lend a hand. Or just hang around. A sugarhouse is one of the most sociable places on earth. Now the conversation turns to last year, when the sap run was huge and the boiling went on night and day. "I worked 39 hours straight," Gordon recalls.

When it's my turn to load the firebox, I put on heavy gloves and swing open the door. I pitch 18 big pieces of wood onto the glowing coals. Within seconds, the new wood is ablaze, and the sap rumbles back up to a frothing boil. After a bit, Anita decides it's time to do a test. She opens a valve, and a thick stream of hot, amber liquid pours out of a spigot into the waiting can. In a typical season, the Richardsons fill 180 of the ten-gallon cans which, at the current retail rate of $30 a gallon, figures out to a gross of $54,000.

Ezra and Emory come rolling down the road from the cow barn on their little wagon. With hardly a moment's badgering, they get their grandfather to pour them out some warm maple syrup. Holding their cups in both hands, they are quiet for once, deep in concentration, sucking in the flavor of their world.

Vermont-based writer Chris Granstrom can be reached at gran@together.net.

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CHEVY IMPALA WE'LL BE THERE

THE OBJECT

AT HAND

It's a Wurlitzer

THE GIANT OF THE MUSICAL INSTRUMENT COLLECTION MAKES TUNES—ROOTIN'-TOOTIN' OR ROMANTIC

BY MARY K. MILLER

It's like flying a jumbo jet, says Kevin King, playing a Wurlitzer at a California pizza house.

OF ALL THE MUSICAL INSTRUMENTS in the Smithsonian Institution's collection of 5,200 violins, pianos, banjos and others, the largest—it fills three rooms—represents a unique period of nearly forgotten American history.

It's a Wurlitzer theater organ. In the early 20th century, thousands of these gigantic pipe organs were installed in movie theaters throughout the United States, Canada, England and Australia to accompany silent movies. This one worked its wonders in the Fox Theatre in Appleton, Wisconsin.

The Smithsonian's instrument is a rare, completely original Wurlitzer donated by the estate of Lowell Ayars, a New Jersey music teacher, in 1993. Ayars kept it in museum-quality condition during the 30-some years it was played in his home. When Ayars died in 1992, he willed it to his friend Brantley Duddy, and Duddy contacted the Smithsonian, which gratefully accepted it for the musical instrument collection of the National Museum of American History. For now, it sits in storage, its burnished white-and-gold console protected by a sheet of plastic. But there are plans to restore it to glory.

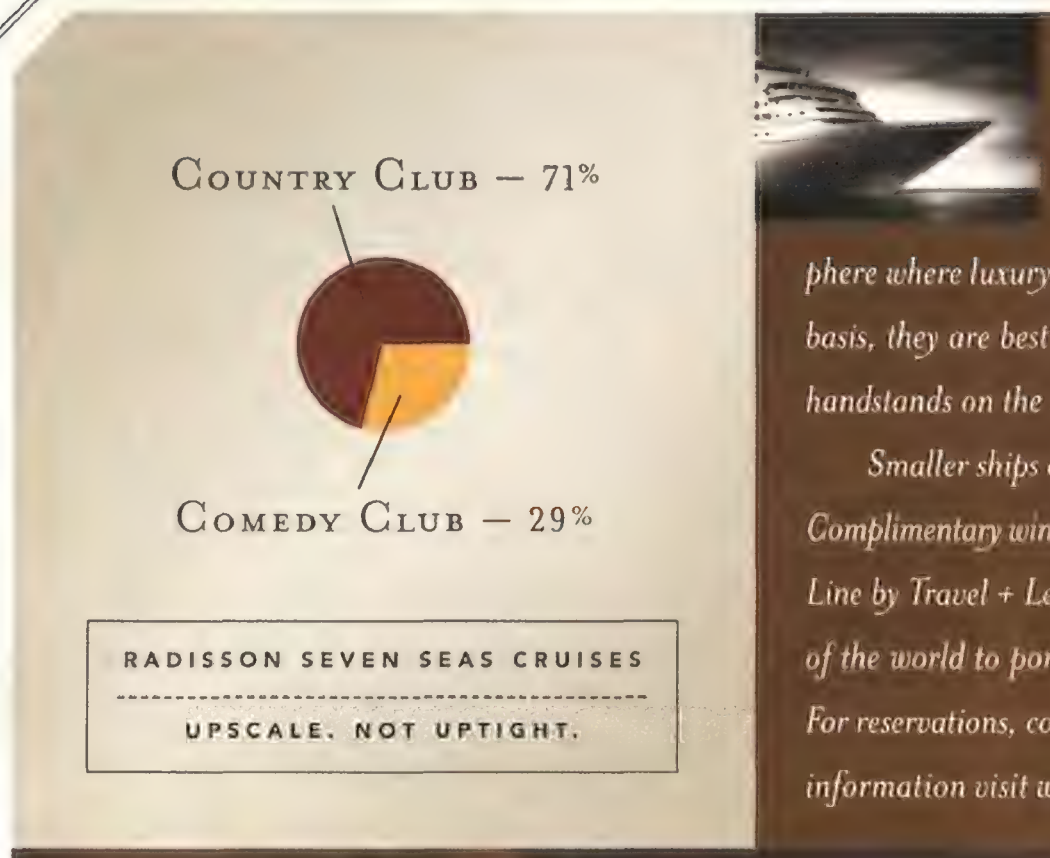
The Ayars organ, a Model 190 (serial number 2070), was built by the Rudolph Wurlitzer Company of North Tonawanda, New York, in 1929 for the Fox Theatre. After the theater became a department store in 1959, the organ briefly went into storage until Ayars bought it and installed it in his New Jersey home.

As theater organs go, this one is modest in size, its pipes fitting into a space about 15 feet wide and 13 feet deep. It sports two keyboards (called manuals), 584 individual pipes organized into eight ranks, and four tuned percussion instruments as well as special effects. The largest original Wurlitzer still in operation—with more than 4,000 pipes in 58 ranks, ranging from 32 feet in length to the size of a pencil—is also the most famous: the Radio City Music Hall Wurlitzer in New York City, which was installed in 1932.

Between 1911 and 1943, the Rudolph Wurlitzer Company built more than 2,000 theater organs, most of them about the size of the Ayars, for smaller, neighborhood theaters. The first silent films had been accompanied by a pit orchestra or, for the more frugally minded impresario, a lone piano. When the theater organ came along, with its ability to imitate an orchestra and create special sound effects, every movie house owner had to have one.

At its peak in 1926, the company was shipping a Wurlitzer a day, mass-producing one of the most technologically advanced machines of its time. The theater organ is related to the classic church pipe organ, whose basic design has been around for more than 2,000 years. Air blown through pipes, each tuned to create a different musical tone, creates the sound. Blowers located under the ranks, or sets of pipes, force air into them when valves are opened as the

WILLIAM MERCER MCLEOD



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The Smithsonian's Wurlitzer (its console above, with the Star-Spangled Banner) likely played the national anthem before movies.

Actor Douglas Fairbanks clowned at a Wurlitzer (with Sid Grauman atop) at Grauman's Egyptian Theatre in 1920s Hollywood.

organist plays the keys and stops (tabs the organist flips up or down to activate different ranks of pipes).

In a church organ, this rather simple mechanism can produce only a certain number of sounds. To the dismay of lovers of the traditional organ, British inventor and telephone engineer Robert Hope-Jones electrified it and created a switching system to allow any combination of pipes and effects to be played at once. His instruments could produce numerous inventive sound effects, including train and boat whistles, car horns and bird whistles, and some could even simulate pistol shots, ringing phones, the sound of surf, horses' hooves, smashing pottery, thunder and rain.

The new organs either incorporated or at least imitated other musical instruments—from piano and violin to trumpet, drums, cymbals, even bells and chimes. Hope-Jones dubbed it the Unit Orchestra: with it an organist could imitate an entire dance band or orchestra.

In 1910, after his company foundered, Hope-Jones was bought out by the Wurlitzer Company, which, with elegant-looking products and aggressive advertising, dominated the theater organ market. Even today, many people remember the slogan: "Gee Dad, it's a Wurlitzer."

Wurlitzer's time in the limelight was brief. The sound of Al Jolson's voice in *The Jazz Singer* of 1927 spelled doom for the theater organ. Soon Hollywood was putting sound in every movie it produced. By the mid-1930s, most theater owners had replaced their organs with speaker systems.

Of the more than 5,000 organs manufactured in the early 1900s, only a few hundred remain in public venues; a few others, like the Ayars organ, were rescued by private collectors. Only a handful are in their original theater installations. Richmond, Virginia, has three theaters with original organs, the Chicago Theatre still has its Wurlitzer, and some of the truly grand movie palaces have original organ installations, including the Fox Theatres in Atlanta, St. Louis and Detroit and the Orpheum in Los Angeles.

Forty years ago, Carsten Henningson, owner of Ye Olde Pizza Joynt in Hayward, California, and a devoted organ enthusiast, decided a Wurlitzer might help boost business. It did just that, and the phenomenon spread throughout the state and beyond as dozens of moribund theater organs found new lives in restaurants.

At one such venue—the Bella Roma Pizza restaurant in Martinez, California—on a recent Sunday night, organist Kevin King put a Wurlitzer through its paces, bouncing in his seat as his hands played different keyboards, occasionally pausing to flip stops, while his feet plied the pedals. "You're playing all the orchestra sounds plus some real instruments," he says.

Musical historians and theater organ buffs would like to see the Smithsonian's Wurlitzer played publicly once again. Exhibits specialist and theater organist Brian Jensen helped bring the organ to the Institution. "Ours does not have all the bells and whistles of the larger organs found in big cities," says Jensen, "but it represents what was in 90 percent of the theaters across the country, in neighborhoods and smaller towns. Like the Star-Spangled Banner, it's a recognized symbol of American culture."

Mary K. Miller is a writer and producer for the Exploratorium, a hands-on science museum in San Francisco, California.

ERIC LONG/NATIONAL MUSEUM OF AMERICAN HISTORY, SI; WURLITZER COLLECTION, ARCHIVES CENTER, NATIONAL MUSEUM OF AMERICAN HISTORY, SI

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BRIEF SUMMARY

SHAKE GENTLY BEFORE USE.

For Intranasal Use Only.

The following is a brief summary only; see full prescribing information for complete product information.

CONTRAINDICATIONS: FLONASE Nasal Spray is contraindicated in patients with a hypersensitivity to any of its ingredients.

WARNINGS: The replacement of a systemic corticosteroid with a topical corticosteroid can be accompanied by signs of adrenal insufficiency, and in addition some patients may experience symptoms of withdrawal, e.g., joint and/or muscular pain, lassitude, and depression. Patients previously treated for prolonged periods with systemic corticosteroids and transferred to topical corticosteroids should be carefully monitored for acute adrenal insufficiency in response to stress. In those patients who have asthma or other clinical conditions requiring long-term systemic corticosteroid treatment, too rapid a decrease in systemic corticosteroids may cause a severe exacerbation of their symptoms.

The concomitant use of intranasal corticosteroids with other inhaled corticosteroids could increase the risk of signs or symptoms of hypercorticism and/or suppression of the HPA axis.

Patients who are on immunosuppressant drugs are more susceptible to infections than healthy individuals. Chickenpox and measles, for example, can have a more serious or even fatal course in patients on immunosuppressant doses of corticosteroids. In such patients who have not had these diseases, particular care should be taken to avoid exposure. How the dose, route, and duration of corticosteroid administration affects the risk of developing a disseminated infection is not known. The contribution of the underlying disease and/or prior corticosteroid treatment to the risk is also not known. If exposed to chickenpox, prophylaxis with varicella zoster immune globulin (VZIG) may be indicated. If exposed to measles, prophylaxis with pooled intramuscular immunoglobulin (IG) may be indicated. (See the respective package inserts for complete VZIG and IG prescribing information.) If chickenpox develops, treatment with antiviral agents may be considered.

PRECAUTIONS:

General: Rarely, immediate hypersensitivity reactions or contact dermatitis may occur after the administration of FLONASE Nasal Spray. Rare instances of wheezing, nasal septum perforation, cataracts, glaucoma, and increased intraocular pressure have been reported following the intranasal application of corticosteroids, including fluticasone propionate.

Use of excessive doses of corticosteroids may lead to signs or symptoms of hypercorticism, suppression of HPA function, and/or reduction of growth velocity in children or teenagers. Physicians should closely follow the growth of children and adolescents taking corticosteroids, by any route, and weigh the benefits of corticosteroid therapy against the possibility of growth suppression if growth appears slowed.

Although systemic effects have been minimal with recommended doses of FLONASE Nasal Spray, potential risk increases with larger doses. Therefore, larger than recommended doses of FLONASE Nasal Spray should be avoided.

When used at higher than recommended doses, or in rare individuals at recommended doses, systemic corticosteroid effects such as hypercorticism and adrenal suppression may appear. If such changes occur, the dosage of FLONASE Nasal Spray should be discontinued slowly consistent with accepted procedures for discontinuing oral corticosteroid therapy.

In clinical studies with fluticasone propionate administered intranasally, the development of localized infections of the nose and pharynx with *Candida albicans* has occurred only rarely. When such an infection develops, it may require treatment with appropriate local therapy and discontinuation of treatment with FLONASE Nasal Spray. Patients using FLONASE Nasal Spray over several months or longer should be examined periodically for evidence of *Candida* infection or other signs of adverse effects on the nasal mucosa.

FLONASE Nasal Spray should be used with caution, if at all, in patients with active or quiescent tuberculous infection; untreated local or systemic fungal or bacterial, or systemic viral infections or parasitic infection; or ocular herpes simplex.

Because of the inhibitory effect of corticosteroids on wound healing, patients who have experienced recent nasal septal ulcers, nasal surgery, or nasal trauma should not use a nasal corticosteroid until healing has occurred.

Information for Patients: Patients being treated with FLONASE Nasal Spray should receive the following information and instructions. This information is intended to aid them in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Patients should be warned to avoid exposure to chickenpox or measles and, if exposed, to consult their physician without delay.

Patients should use FLONASE Nasal Spray at regular intervals as directed since its effectiveness depends on its regular use. A decrease in nasal symptoms may occur as soon as 12 hours after starting therapy with FLONASE Nasal Spray. Results in several clinical trials indicate statistically significant improvement within the first day or two of treatment; however, the full benefit of FLONASE Nasal Spray may not be achieved until treatment has been administered for several days. The patient should not increase the prescribed dosage but should contact the physician if symptoms do not improve or if the condition worsens. For the proper use of the nasal spray and to attain maximum improvement, the patient should read and follow carefully the accompanying patient's instructions.

Drug Interactions: In a placebo-controlled, crossover study in 8 healthy volunteers, coadministration of a single dose of orally inhaled fluticasone propionate (1000 mcg, 5 times the maximum daily intranasal dose) with multiple doses of ketoconazole (200 mg) to steady state resulted in increased mean fluticasone propionate concentrations, a reduction in plasma cortisol AUC, and no effect on urinary excretion of cortisol. This interaction may be due to an inhibition of the cytochrome P450 3A4 isoenzyme system by ketoconazole, which is also the route of metabolism of fluticasone propionate. No drug interaction studies have been conducted with FLONASE Nasal Spray; however, care should be exercised when fluticasone propionate is coadministered with long-term ketoconazole and other known cytochrome P450 3A4 inhibitors.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Fluticasone propionate demonstrated no tumorigenic potential in mice at oral doses up to 1000 mcg/kg (approximately 20 times the maximum recommended daily intranasal dose in adults and approximately 10 times the maximum recommended daily intranasal dose in children on a mcg/m² basis) for 78 weeks or in rats at inhalation doses up to 57 mcg/kg (approximately 2 times the maximum recommended daily intranasal dose in adults and approximately equivalent to the maximum recommended daily intranasal dose in children on a mcg/m² basis) for 104 weeks.

Fluticasone propionate did not induce gene mutation in prokaryotic or eukaryotic cells in vitro. No significant clastogenic effect was seen in cultured human peripheral lymphocytes in vitro or in the mouse micronucleus test when administered at high doses by the oral or subcutaneous routes. Furthermore, the compound did not delay erythroblast division in bone marrow.

No evidence of impairment of fertility was observed in reproductive studies conducted in male and female rats at subcutaneous doses up to 50 mcg/kg (approximately 2 times the maximum recommended daily intranasal dose in adults on a mcg/m² basis). Prostate weight was significantly reduced at a subcutaneous dose of 50 mcg/kg.

Pregnancy: ***Teratogenic Effects:*** Pregnancy Category C. Subcutaneous studies in the mouse and rat at 45 and 100 mcg/kg, respectively (approximately equivalent to and 4 times the maximum recommended daily intranasal dose in adults on a mcg/m² basis, respectively) revealed fetal toxicity characteristic of potent corticosteroid compounds, including embryonic growth retardation, omphalocele, cleft palate, and retarded cranial ossification.

In the rabbit, fetal weight reduction and cleft palate were observed at a subcutaneous dose of 4 mcg/kg (less than the maximum recommended daily intranasal dose in adults on a mcg/m² basis).

However, no teratogenic effects were reported at oral doses up to 300 mcg/kg (approximately 25 times the maximum recommended daily intranasal dose in adults on a mcg/m² basis) of fluticasone propionate to the rabbit. No fluticasone propionate was detected in the plasma in this study, consistent with the established low

bioavailability following oral administration (see CLINICAL PHARMACOLOGY section of full prescribing information).

Fluticasone propionate crossed the placenta following oral administration of 100 mcg/kg to rats or 300 mcg/kg to rabbits (approximately 4 and 25 times, respectively, the maximum recommended daily intranasal dose in adults on a mcg/m² basis).

There are no adequate and well-controlled studies in pregnant women. Fluticasone propionate should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Experience with oral corticosteroids since their introduction in pharmacologic, as opposed to physiologic, doses suggests that rodents are more prone to teratogenic effects from corticosteroids than humans. In addition, because there is a natural increase in corticosteroid production during pregnancy, most women will require a lower exogenous corticosteroid dose and many will not need corticosteroid treatment during pregnancy.

Nursing Mothers: It is not known whether fluticasone propionate is excreted in human breast milk. When tritiated fluticasone propionate was administered to rats at a subcutaneous dose of 10 mcg/kg (less than the maximum recommended daily intranasal dose in adults on a mcg/m² basis), radioactivity was excreted in the milk. Because other corticosteroids are excreted in human milk, caution should be exercised when FLONASE Nasal Spray is administered to a nursing woman.

Pediatric Use: Five hundred (500) patients aged 4 to 11 years of age and 440 patients aged 12 to 17 years were studied in US clinical trials with fluticasone propionate nasal spray. The safety and effectiveness of FLONASE Nasal Spray in children below 4 years of age have not been established.

Oral and, to a less clear extent, inhaled and intranasal corticosteroids have been shown to have the potential to cause a reduction in growth velocity in children and adolescents with extended use. If a child or adolescent on any corticosteroid appears to have growth suppression, the possibility that they are particularly sensitive to this effect of corticosteroids should be considered (see PRECAUTIONS).

Geriatric Use: A limited number of patients above 60 years of age (n=275) have been treated with FLONASE Nasal Spray in US and non-US clinical trials. While the number of patients is too small to permit separate analysis of efficacy and safety, the adverse reactions reported in this population were similar to those reported by younger patients.

ADVERSE REACTIONS: In controlled US studies, more than 3300 patients with seasonal allergic, perennial allergic, or perennial nonallergic rhinitis received treatment with intranasal fluticasone propionate. In general, adverse reactions in clinical studies have been primarily associated with irritation of the nasal mucous membranes, and the adverse reactions were reported with approximately the same frequency by patients treated with the vehicle itself. The complaints did not usually interfere with treatment. Less than 2% of patients in clinical trials discontinued because of adverse events; this rate was similar for vehicle placebo and active comparators.

Systemic corticosteroid side effects were not reported during controlled clinical studies up to 6 months' duration with FLONASE Nasal Spray. If recommended doses are exceeded, however, or if individuals are particularly sensitive, or taking FLONASE Nasal Spray in conjunction with administration of other corticosteroids, symptoms of hypercorticism, e.g., Cushing's syndrome, could occur.

The following incidence of common adverse reactions (>3%, where incidence in fluticasone propionate-treated subjects exceeded placebo) is based upon 7 controlled clinical trials in which 536 patients (57 girls and 108 boys aged 4-11 years, 137 female and 234 male adolescents and adults) were treated with FLONASE Nasal Spray 200 mcg once daily over 2 to 4 weeks and 2 controlled clinical trials in which 246 patients (119 female and 127 male adolescents and adults) were treated with FLONASE Nasal Spray 200 mcg once daily over 6 months. Also included in the table are adverse events from 2 studies in which 167 children (45 girls and 122 boys aged 4-11 years) were treated with FLONASE Nasal Spray 100 mcg once daily for 2 to 4 weeks.

Overall Adverse Experiences With >3% Incidence on Fluticasone Propionate in Controlled Clinical Trials With FLONASE Nasal Spray in Patients ≥4 Years With Seasonal or Perennial Allergic Rhinitis

Adverse Experience	Vehicle Placebo (n=758) %	FLONASE 100 mcg Once Daily (n=167) %	FLONASE 200 mcg Once Daily (n=782) %
Headache	14.6	6.6	16.1
Pharyngitis	7.2	6.0	7.8
Epistaxis	5.4	6.0	6.9
Nasal burning/ nasal irritation	2.6	2.4	3.2
Nausea/vomiting	2.0	4.8	2.6
Asthma symptoms	2.9	7.2	3.3
Cough	2.8	3.6	3.8

Other adverse events that occurred in ≤3% but ≥1% of patients and that were more common with fluticasone propionate (with uncertain relationship to treatment) included: blood in nasal mucus, runny nose, abdominal pain, diarrhea, fever, flu-like symptoms, aches and pains, dizziness, bronchitis.

Observed During Clinical Practice: In addition to adverse events reported from clinical trials, the following events have been identified during postapproval use of fluticasone propionate in clinical practice. Because they are reported voluntarily from a population of unknown size, estimates of frequency cannot be made. These events have been chosen for inclusion due to either their seriousness, frequency of reporting, causal connection to fluticasone propionate, occurrence during clinical trials, or a combination of these factors.

General: Hypersensitivity reactions, including angioedema, skin rash, edema of the face and tongue, pruritus, urticaria, bronchospasm, wheezing, dyspnea, and anaphylaxis/anaphylactoid reactions, which in rare instances were severe.

Ear, Nose, and Throat: Alteration or loss of sense of taste and/or smell and, rarely, nasal septal perforation, nasal ulcer, sore throat, throat irritation and dryness, cough, hoarseness, and voice changes.

Eye: Dryness and irritation, conjunctivitis, blurred vision, glaucoma, increased intraocular pressure, and cataracts.

OVERDOSAGE: Chronic overdosage with FLONASE Nasal Spray may result in signs/symptoms of hypercorticism (see PRECAUTIONS). Intranasal administration of 2 mg (10 times the recommended dose) of fluticasone propionate twice daily for 7 days to healthy human volunteers was well tolerated. Single oral doses up to 16 mg have been studied in human volunteers with no acute toxic effects reported. Repeat oral doses up to 80 mg daily for 10 days in volunteers and repeat oral doses up to 10 mg daily for 14 days in patients were well tolerated. Adverse reactions were of mild or moderate severity, and incidences were similar in active and placebo treatment groups. Acute overdosage with this dosage form is unlikely since 1 bottle of FLONASE Nasal Spray contains approximately 8 mg of fluticasone propionate.

The oral and subcutaneous median lethal doses in mice and rats were >1000 mg/kg (>20,000 and >41,000 times, respectively, the maximum recommended daily intranasal dose in adults and >10,000 and >20,000 times, respectively, the maximum recommended daily intranasal dose in children on a mg/m² basis).

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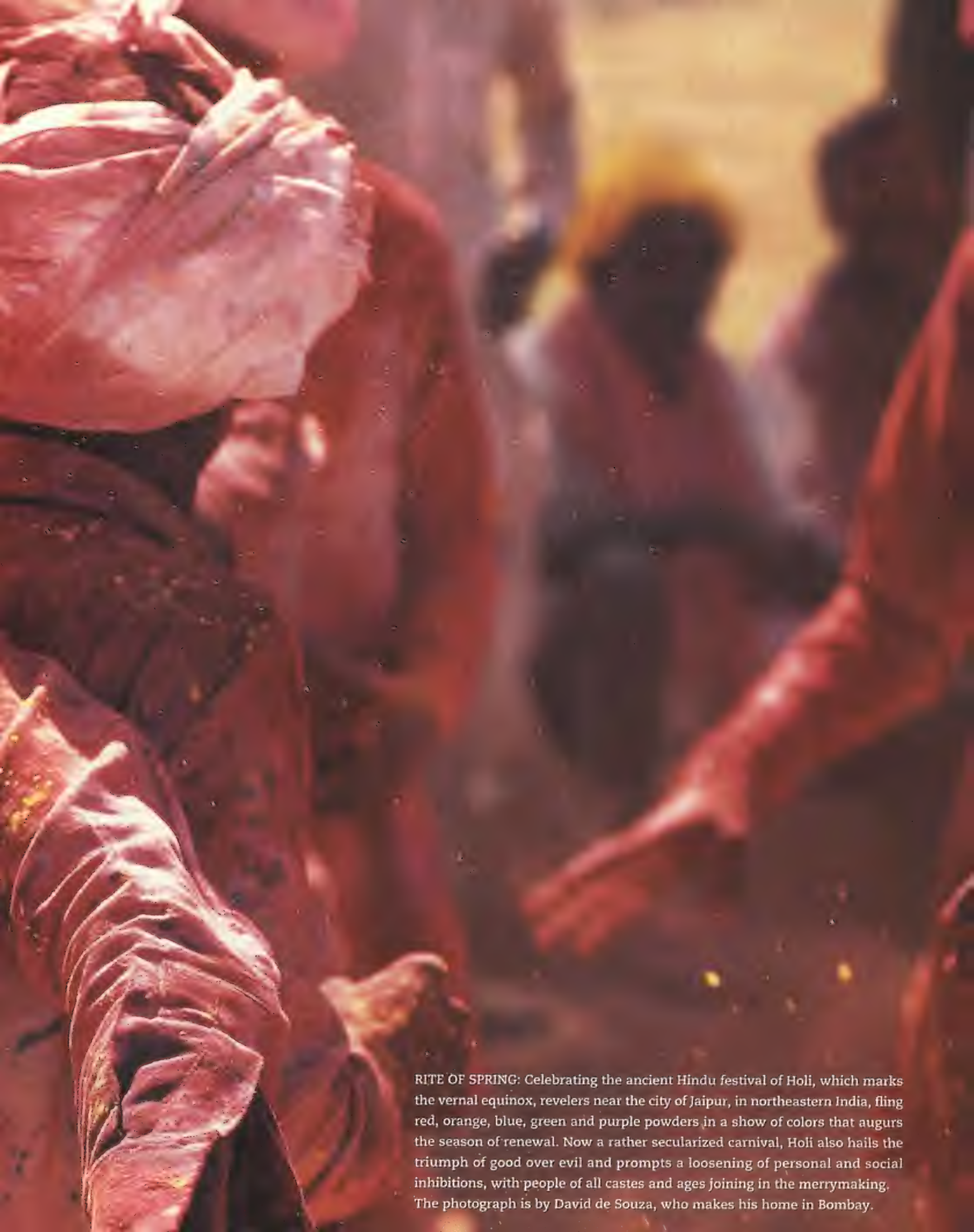

RITE OF SPRING: Celebrating the ancient Hindu festival of Holi, which marks the vernal equinox, revelers near the city of Jaipur, in northeastern India, fling red, orange, blue, green and purple powders in a show of colors that augurs the season of renewal. Now a rather secularized carnival, Holi also hails the triumph of good over evil and prompts a loosening of personal and social inhibitions, with people of all castes and ages joining in the merrymaking. The photograph is by David de Souza, who makes his home in Bombay.

PHENOMENA & CURIOSITIES

Crystal Moonbeams

A PAIR OF MEXICAN MINERS STUMBLE UPON A ROOM FILLED WITH WHAT COULD BE THE WORLD'S LARGEST CRYSTALS

BY JOHN F. ROSS

DEEP BELOW THE SURFACE OF AN isolated mountain range in Mexico sit two rooms of splendor: translucent crystals the length and girth of mature pine trees lie pitched atop one another, as though moonbeams suddenly took on weight and substance.

In April 2000, brothers Eloy and Javier Delgado found what experts believe are the world's largest crystals while blasting a new tunnel 1,000 feet down in the silver and lead Naica Mine of southern Chihuahua. Forty-year-old Eloy climbed through a small opening into a 30- by 60-foot cavern choked with immense crystals. "It was beautiful, like light reflecting off a broken mirror," he says. A month later, another team of Naica miners found an even larger cavern adjacent to the first one.

Officials of the Peñoles company, which owns the mine, kept the discoveries secret out of concern about vandalism. Not many people, however, would venture inside casually: the temperature hovers at 150 degrees, with 100 percent humidity.

"Stepping into the large cavern is like entering a blast furnace," says explorer Richard Fisher of Tucson, Arizona, whose photographs appear on these pages. "In seconds, your clothes become saturated with sweat." He recalls that his emotions raced from awe to panic.

Fisher says a person can stay inside the cave for only six to ten minutes before becoming disoriented. After taking only a few photographs, "I really had to concentrate intensely on getting back

These gigantic crystals, recently discovered in a mine in southern Chihuahua, Mexico, might have grown in only 30 to 100 years.

ALL: RICHARD D. FISHER

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These massive formations are composed of selenite, the transparent, crystallized form of gypsum, the mineral commonly used in wallboard and the source of plaster of paris.

out the door, which was only 30 to 40 feet away." After a brief rest, he returned for another couple of minutes. "They practically had to carry me out after that," Fisher says.

Geologists conjecture that a chamber of magma, or superheated molten rock, lying two to three miles underneath the mountain, forced mineral-rich fluids upward through a fault into openings in the limestone bedrock near the surface. Over time, this hydrothermal liquid deposited metals such as gold, silver, lead and zinc in the limestone bedrock. These metals have been mined here since prospectors discovered the deposits in 1794 in a small range of hills south of Chihuahua City.

But in a few caves the conditions were ideal for formation of a different kind of treasure. Groundwater in these caves, rich with sulfur from the adjacent metal deposits, began dissolving the limestone walls, releasing large quantities of calcium. This calcium, in turn, combined with the sulfur to form crystals on a scale never before seen by humans. "You can hold most of the crystals on earth in the palm of your hand," says Jeffrey Post, a curator of minerals at the Smithsonian Institution. "To see crystals that are so huge and perfect is truly mind-expanding."

In addition to 4-foot-in-diameter columns 50 feet in length, the cavern contains row upon row of shark-tooth-shaped formations up to 3 feet high, which are set at odd angles throughout. For its pale translucence, this crystal form of the mineral gypsum is known as selenite, named after Selene, the Greek goddess of the moon. "Under perfect conditions," says Roberto Villasuso, exploration superintendent at the Naica Mine, "these crystals probably would have taken between 30 to 100 years to grow."

Until April 2000, mining officials had restricted exploration on one side of the fault out of concern that any new tunneling might lead to flooding of the rest of the mine. Only after pumping out the mine did the level of water drop sufficiently for exploration. "Everyone who knows the area," says Fisher, "is on pins and needles, because caverns with even more fantastic crystal formations could be found any day."

Previously, the world's largest examples of selenite crystals came from a nearby cavern discovered in 1910 within the same Naica cave complex. Several examples from the Cave of Swords are exhibited at the Janet Annenberg Hooker Hall of Geology, Gems, and Minerals at the Smithsonian's National Museum of Natural History.

These Smithsonian crystals you can visit, no sweat.

John F. Ross is a senior editor at SMITHSONIAN.

Important information:

LIPITOR® (atorvastatin calcium) is a prescription drug used with diet to lower cholesterol. LIPITOR is not for everyone, including those with liver disease or possible liver problems, women who are nursing, pregnant, or may become pregnant. LIPITOR has not been shown to prevent heart disease or heart attacks.

If you take LIPITOR, tell your doctor about any unusual muscle pain or weakness. This could be a sign of serious side effects. It is important to tell your doctor about any medications you are currently taking to avoid possible serious drug interactions. Your doctor may do simple blood tests to monitor liver function before and during drug treatment. The most commonly reported side effects are gas, constipation, stomach pain and indigestion. They are usually mild and tend to go away.

Please see additional important information on next page.

When it comes to high cholesterol, looks can be deceiving. Because anyone can have it, and diet and exercise may not lower it enough. The good news is adding LIPITOR can lower your total cholesterol 29% to 45% and your bad cholesterol 39% to 60% (average effect depending on dose). So stay beautiful on the inside. One in five people has high cholesterol and millions need treatment — talk to your doctor to find out if LIPITOR is right for you. To learn more, contact us at **1-888-LIPITOR** or **www.lipitor.com.**

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LIPITOR® (Atorvastatin Calcium) Tablets
Brief Summary of Prescribing Information

CONTRAINDICATIONS: Active liver disease or unexplained persistent elevations of serum transaminases. Hypersensitivity to any component of this medication. **Pregnancy and Lactation** — Atherosclerosis is a chronic process and discontinuation of lipid-lowering drugs during pregnancy should have little impact on the outcome of long-term therapy of primary hypercholesterolemia. Cholesterol and other products of cholesterol biosynthesis are essential components for fetal development (including synthesis of steroids and cell membranes). Since HMG-CoA reductase inhibitors decrease cholesterol synthesis and possibly the synthesis of other biologically active substances derived from cholesterol, they may cause fetal harm when administered to pregnant women. Therefore, HMG-CoA reductase inhibitors are contraindicated during pregnancy and in nursing mothers. ATORVASTATIN SHOULD BE ADMINISTERED TO WOMEN OF CHILDBEARING AGE ONLY WHEN SUCH PATIENTS ARE HIGHLY UNLIKELY TO CONCEIVE AND HAVE BEEN INFORMED OF THE POTENTIAL HAZARDS. If the patient becomes pregnant while taking this drug, therapy should be discontinued and the patient apprised of the potential hazard to the fetus.

WARNINGS: Liver Dysfunction — HMG-CoA reductase inhibitors, like some other lipid-lowering therapies, have been associated with biochemical abnormalities of liver function. **Persistent elevations (>3 times the upper limit of normal [ULN] occurring on 2 or more occasions) in serum transaminases occurred in 0.7% of patients who received atorvastatin in clinical trials. The incidence of these abnormalities was 0.2%, 0.2%, 0.6%, and 2.3% for 10, 20, 40, and 80 mg, respectively.** One patient in clinical trials developed jaundice. Increases in liver function tests (LFT) in other patients were not associated with jaundice or other clinical signs or symptoms. Upon dose reduction, drug interruption, or discontinuation, transaminase levels returned to or near pretreatment levels without sequelae. Eighteen of 30 patients with persistent LFT elevations continued treatment with a reduced dose of atorvastatin. **It is recommended that liver function tests be performed prior to and at 12 weeks following both the initiation of therapy and any elevation of dose, and periodically (eg, semiannually) thereafter.** Liver enzyme changes generally occur in the first 3 months of treatment with atorvastatin. Patients who develop increased transaminase levels should be monitored until the abnormalities resolve. Should an increase in ALT or AST of >3 times ULN persist, reduction of dose or withdrawal of atorvastatin is recommended. Atorvastatin should be used with caution in patients who consume substantial quantities of alcohol and/or have a history of liver disease. Active liver disease or unexplained persistent transaminase elevations are contraindications to the use of atorvastatin (see CONTRAINDICATIONS). **Skeletal Muscle — Rhabdomyolysis with acute renal failure secondary to myoglobinuria has been reported with other drugs in this class.** Uncomplicated myalgia has been reported in atorvastatin-treated patients (see ADVERSE REACTIONS). Myopathy, defined as muscle aches or muscle weakness in conjunction with increases in creatine phosphokinase (CPK) values >10 times ULN, should be considered in any patient with diffuse myalgias, muscle tenderness or weakness, and/or marked elevation of CPK. Patients should be advised to report promptly unexplained muscle pain, tenderness or weakness, particularly if accompanied by malaise or fever. Atorvastatin therapy should be discontinued if markedly elevated CPK levels occur or myopathy is diagnosed or suspected. The risk of myopathy during treatment with other drugs in this class is increased with concurrent administration of cyclosporine, fibric acid derivatives, erythromycin, niacin, or azole antifungals. Physicians considering combined therapy with atorvastatin and fibric acid derivatives, erythromycin, immunosuppressive drugs, azole antifungals, or lipid-lowering doses of niacin should carefully weigh the potential benefits and risks and should carefully monitor patients for any signs or symptoms of muscle pain, tenderness, or weakness, particularly during the initial months of therapy and during any periods of upward dosage titration of either drug. Periodic creatine phosphokinase (CPK) determinations may be considered in such situations, but there is no assurance that such monitoring will prevent the occurrence of severe myopathy. **Atorvastatin therapy should be temporarily withheld or discontinued in any patient with an acute, serious condition suggestive of a myopathy or having a risk factor predisposing to the development of renal failure secondary to rhabdomyolysis (eg, severe acute infection, hypotension, major surgery, trauma, severe metabolic, endocrine and electrolyte disorders, and uncontrolled seizures).**

PRECAUTIONS: General — Before instituting therapy with atorvastatin, an attempt should be made to control hypercholesterolemia with appropriate diet, exercise, and weight reduction in obese patients, and to treat other underlying medical problems (see INDICATIONS AND USAGE in full prescribing information). **Information for Patients** — Patients should be advised to report promptly unexplained muscle pain, tenderness, or weakness, particularly if accompanied by malaise or fever. **Drug Interactions** — The risk of myopathy during treatment with other drugs of this class is increased with concurrent administration of cyclosporine, fibric acid derivatives, niacin (nicotinic acid), erythromycin, azole antifungals (see WARNINGS, Skeletal Muscle). ***Antacid:*** When atorvastatin and Maalox® TC suspension were coadministered, plasma concentrations of atorvastatin decreased approximately 35%. However, LDL-C reduction was not altered. ***Antipyrine:*** Because atorvastatin does not affect the pharmacokinetics of antipyrine, interactions with other drugs metabolized via the same cytochrome isozymes are not expected. ***Colestipol:*** Plasma concentrations of atorvastatin decreased approximately 25% when colestipol and atorvastatin were coadministered. However, LDL-C reduction was greater when atorvastatin and colestipol were coadministered than when either drug was given alone. ***Cimetidine:*** Atorvastatin plasma concentrations and LDL-C reduction were not altered by coadministration of cimetidine. ***Digoxin:*** When multiple doses of atorvastatin and digoxin were coadministered, steady-state plasma digoxin concentrations increased by approximately 20%. Patients taking digoxin should be monitored appropriately. ***Erythromycin:*** In healthy individuals, plasma concentrations of atorvastatin increased approximately 40% with coadministration of atorvastatin and erythromycin, a known inhibitor of cytochrome P450 3A4 (see WARNINGS, Skeletal Muscle). ***Oral Contraceptives:*** Coadministration of atorvastatin and an oral contraceptive increased AUC values for norethindrone and ethinyl estradiol by approximately 30% and 20%. These increases should be considered when selecting an oral contraceptive for a woman taking atorvastatin. ***Warfarin:*** Atorvastatin had no clinically significant effect on prothrombin time when administered to patients receiving chronic warfarin treatment. **Endocrine Function** — HMG-CoA reductase inhibitors interfere with cholesterol synthesis and theoretically might blunt adrenal and/or gonadal steroid production. Clinical studies have shown that atorvastatin does not reduce basal plasma cortisol concentration or impair adrenal reserve. The effects of HMG-CoA reductase inhibitors on male fertility have not been studied in adequate numbers of patients. The effects, if any, on the pituitary-gonadal axis in premenopausal women are unknown. Caution should be exercised if an HMG-CoA reductase inhibitor is administered concomitantly with drugs that may decrease the levels or activity of endogenous steroid hormones, such as ketoconazole, spironolactone, and cimetidine. **CNS Toxicity** — Brain hemorrhage was seen in a female dog treated for 3 months at 120 mg/kg/day. Brain hemorrhage and optic nerve vacuolation were seen in another female dog that was sacrificed in moribund condition after 11 weeks of escalating doses up to 280 mg/kg/day. The 120 mg/kg dose resulted in a systemic exposure approximately 16 times the human plasma area-under-the-curve (AUC, 0-24 hours) based on the maximum human dose of 80 mg/day. A single tonic convulsion was seen in each of 2 male dogs (one treated at 10 mg/kg/day and one at 120 mg/kg/day) in a 2-year study. No CNS lesions have been observed in mice after chronic treatment for up to 2 years at doses up to 400 mg/kg/day or in rats at doses up to 100 mg/kg/day. These doses were 6 to 11 times (mouse) and 8 to 16 times (rat) the human AUC (0-24) based on the maximum recommended human dose of 80 mg/day. CNS vascular lesions, characterized by perivascular hemorrhages, edema, and mononuclear cell infiltration of perivascular spaces, have been observed in dogs treated with other members of this class. A chemically similar drug in this class produced optic nerve degeneration (Wallerian degeneration of retinogeniculate fibers) in clinically normal dogs in a dose-dependent fashion at a dose that produced plasma drug levels about 30 times higher than the mean drug level in humans taking the highest recommended dose. **Carcinogenesis, Mutagenesis, Impairment of Fertility** — In a 2-year carcinogenicity study in rats at dose levels of 10, 30, and 100 mg/kg/day, 2 rare tumors were found in muscle in high-dose females: in one, there was a rhabdomyosarcoma and, in another, there was a fibrosarcoma. This dose represents a plasma AUC (0-24) value of approximately 16 times the mean human plasma drug exposure after an 80 mg oral dose. A 2-year carcinogenicity study in mice given 100, 200, or 400 mg/kg/day resulted in a significant increase in liver adenomas in high-dose males and liver carcinomas in high-dose females. These findings occurred at plasma AUC (0-24) values of approximately 6 times the mean human plasma drug exposure after an 80 mg oral dose. *In vitro*, atorvastatin was not mutagenic or clastogenic in the following tests with and without metabolic activation: the Ames test with *Salmonella typhimurium* and *Escherichia coli*, the HGPRT forward mutation assay in Chinese hamster lung cells, and the chromosomal aberration assay in Chinese hamster lung cells. Atorvastatin was negative in the *in vivo* mouse micronucleus test. Studies in rats performed at doses up to 175 mg/kg (15 times the human exposure) produced no changes in fertility.

There was aplasia and aspermia in the epididymis of 2 of 10 rats treated with 100 mg/kg/day of atorvastatin for 3 months (16 times the human AUC at the 80 mg dose); testis weights were significantly lower at 30 and 100 mg/kg and epididymal weight was lower at 100 mg/kg. Male rats given 100 mg/kg/day for 11 weeks prior to mating had decreased sperm motility, spermatid head concentration, and increased abnormal sperm. Atorvastatin caused no adverse effects on semen parameters, or reproductive organ histopathology in dogs given doses of 10, 40, or 120 mg/kg for two years. **Pregnancy — Pregnancy Category X: See CONTRAINDICATIONS.** Safety in pregnant women has not been established. Atorvastatin crosses the rat placenta and reaches a level in fetal liver equivalent to that of maternal plasma. Atorvastatin was not teratogenic in rats at doses up to 300 mg/kg/day or in rabbits at doses up to 100 mg/kg/day. These doses resulted in multiples of about 30 times (rat) or 20 times (rabbit) the human exposure based on surface area (mg/m^2). In a study in rats given 20, 100, or 225 mg/kg/day, from gestation day 7 through to lactation day 21 (weaning), there was decreased pup survival at birth, neonate, weaning, and maturity in pups of mothers dosed with 225 mg/kg/day. Body weight was decreased on days 4 and 21 in pups of mothers dosed at 100 mg/kg/day; pup body weight was decreased at birth and at days 4, 21, and 91 at 225 mg/kg/day. Pup development was delayed (rotorod performance at 100 mg/kg/day and acoustic startle at 225 mg/kg/day; pinnae detachment and eye opening at 225 mg/kg/day). These doses correspond to 6 times (100 mg/kg) and 22 times (225 mg/kg) the human AUC at 80 mg/day. Rare reports of congenital anomalies have been received following intrauterine exposure to HMG-CoA reductase inhibitors. There has been one report of severe congenital bony deformity, tracheo-esophageal fistula, and anal atresia (VATER association) in a baby born to a woman who took lovastatin with dextroamphetamine sulfate during the first trimester of pregnancy. LIPITOR should be administered to women of childbearing potential only when such patients are highly unlikely to conceive and have been informed of the potential hazards. If the woman becomes pregnant while taking LIPITOR, it should be discontinued and the patient advised again as to the potential hazards to the fetus. **Nursing Mothers** — Nursing rat pups had plasma and liver drug levels of 50% and 40%, respectively, of that in their mother's milk. Because of the potential for adverse reactions in nursing infants, women taking LIPITOR should not breastfeed (see CONTRAINDICATIONS). **Pediatric Use** — Treatment experience in a pediatric population is limited to doses of LIPITOR up to 80 mg/day for 1 year in 8 patients with homozygous FH. No clinical or biochemical abnormalities were reported in these patients. None of these patients was below 9 years of age. **Geriatric Use** — Treatment experience in adults age ≥70 years with doses of LIPITOR up to 80 mg/day has been evaluated in 221 patients. The safety and efficacy of LIPITOR in this population were similar to those of patients <70 years of age.

ADVERSE REACTIONS: LIPITOR is generally well tolerated. Adverse reactions have usually been mild and transient. In controlled clinical studies of 2,502 patients, <2% of patients were discontinued due to adverse experiences attributable to atorvastatin. The most frequent adverse events thought to be related to atorvastatin were constipation, flatulence, dyspepsia, and abdominal pain. **Clinical Adverse Experiences** — Adverse experiences reported in ≥2% of patients in placebo-controlled clinical studies of atorvastatin, regardless of causality assessment, are shown in the following table.

Adverse Events in Placebo-Controlled Studies (% of Patients)

BODY SYSTEM Adverse Event	Placebo N = 270	Atorvastatin 10 mg N = 863	Atorvastatin 20 mg N = 36	Atorvastatin 40 mg N = 79	Atorvastatin 80 mg N = 94
BODY AS A WHOLE					
Infection	10.0	10.3	2.8	10.1	7.4
Headache	7.0	5.4	16.7	2.5	6.4
Accidental Injury	3.7	4.2	0.0	1.3	3.2
Flu Syndrome	1.9	2.2	0.0	2.5	3.2
Abdominal Pain	0.7	2.8	0.0	3.8	2.1
Back Pain	3.0	2.8	0.0	3.8	1.1
Allergic Reaction	2.6	0.9	2.8	1.3	0.0
Asthenia	1.9	2.2	0.0	3.8	0.0
DIGESTIVE SYSTEM					
Constipation	1.8	2.1	0.0	2.5	1.1
Diarrhea	1.5	2.7	0.0	3.8	5.3
Dyspepsia	4.1	2.3	2.8	1.3	2.1
Flatulence	3.3	2.1	2.8	1.3	1.1
RESPIRATORY SYSTEM					
Sinusitis	2.6	2.8	0.0	2.5	6.4
Pharyngitis	1.5	2.5	0.0	1.3	2.1
SKIN AND APPENDAGES					
Rash	0.7	3.9	2.8	3.8	1.1
MUSCULOSKELETAL SYSTEM					
Arthralgia	1.5	2.0	0.0	5.1	0.0
Myalgia	1.1	3.2	5.6	1.3	0.0

The following adverse events were reported, regardless of causality assessment in patients treated with atorvastatin in clinical trials. The events in italics occurred in ≥2% of patients and the events in plain type occurred in <2% of patients.

Body as a Whole: Chest pain, face edema, fever, neck rigidity, malaise, photosensitivity reaction, generalized edema. ***Digestive System:*** Nausea, gastroenteritis, liver function tests abnormal, colitis, vomiting, gastritis, dry mouth, rectal hemorrhage, esophagitis, eructation, glossitis, mouth ulceration, anorexia, increased appetite, stomatitis, biliary pain, cheilitis, duodenal ulcer, dysphagia, enteritis, melena, gum hemorrhage, stomach ulcer, tenesmus, ulcerative stomatitis, hepatitis, pancreatitis, cholestatic jaundice. ***Respiratory System:*** Bronchitis, rhinitis, pneumonia, dyspnea, asthma, epistaxis. ***Nervous System:*** Insomnia, dizziness, paresthesia, somnolence, amnesia, abnormal dreams, libido decreased, emotional lability, incoordination, peripheral neuropathy, torticollis, facial paralysis, hyperkinesia, depression, hypesthesia, hypertonia. ***Musculoskeletal System:*** Arthritis, leg cramps, bursitis, tenosynovitis, myasthenia, tendinous contracture, myositis. ***Skin and Appendages:*** Pruritus, contact dermatitis, alopecia, dry skin, sweating, acne, urticaria, eczema, seborrhea, skin ulcer. ***Urogenital System:*** Urinary tract infection, urinary frequency, cystitis, hematuria, impotence, dysuria, kidney calculus, nocturia, epididymitis, fibrocystic breast, vaginal hemorrhage, albuminuria, breast enlargement, metrorrhagia, nephritis, urinary incontinence, urinary retention, urinary urgency, abnormal ejaculation, uterine hemorrhage. ***Special Senses:*** Amblyopia, tinnitus, dry eyes, refraction disorder, eye hemorrhage, deafness, glaucoma, parosmia, taste loss, taste perversion. ***Cardiovascular System:*** Palpitation, vasodilatation, syncope, migraine, postural hypotension, phlebitis, arrhythmia, angina pectoris, hypertension. ***Metabolic and Nutritional Disorders:*** Peripheral edema, hyperglycemia, creatine phosphokinase increased, gout, weight gain, hypoglycemia. ***Hemic and Lymphatic System:*** Ecchymosis, anemia, lymphadenopathy, thrombocytopenia, petechia. ***Postintroduction Reports*** — Adverse events associated with LIPITOR therapy reported since market introduction, that are not listed above, regardless of causality assessment, include the following: anaphylaxis, angioneurotic edema, bullous rashes (including erythema multiforme, Stevens-Johnson syndrome, and toxic epidermal necrolysis), and rhabdomyolysis.

OVERDOSAGE: There is no specific treatment for atorvastatin overdosage. In the event of an overdose, the patient should be treated symptomatically, and supportive measures instituted as required. Due to extensive drug binding to plasma proteins, hemodialysis is not expected to significantly enhance atorvastatin clearance.

This summary provides important information about Lipitor. For more information, please ask your doctor, pharmacist or healthcare professional to provide the professional labeling and then discuss it with them.

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LP106204-A

Hanging Out at the National Zoo

AROUND THE MALL

LOOKING AS IF THEY WERE COBBLED TOGETHER from the spare parts of some wildlife assembly line—tail of raccoon, face of bush baby, eyes of meerkat—a recently installed colony of ten lemurs, rare tree-dwelling primates, clamber about the outcropping that constitutes their new habitat at the National Zoo. The mixed-species troop of eight ring-tailed and two red-fronted lemurs arrived at their quarters from the Duke University Primate Center.

Descendants of the earliest primates, or prosimians, these furry acrobats, about the size of a house cat, are native to the island of Madagascar. Though captive-breeding efforts are under way, lemurs remain increasingly imperiled. Habitat destruction, a result of clear-cutting to create cropland, is carrying wild populations to the brink of extinction.

"Our goal," says Zoo Director Lucy Spellman, "is to encourage behavior observed in the wild. You'll see that here: females dominate, have access to the choicest foods and control the group's movement." Before long, sights common to Madagascar's tamarind groves—lemurs bounding branch to branch; basking in the sun; frisking, tails aloft, into the shadows—may be antics viewed only in sanctuaries for these winsome creatures. —*Lyn Garrity*

JESSIE COHEN/NATIONAL ZOOLOGICAL PARK, SI

In the complex society of lemurs (like these transplants to our nation's capital), females rule. The primates go back 50 million years.

Handiwork

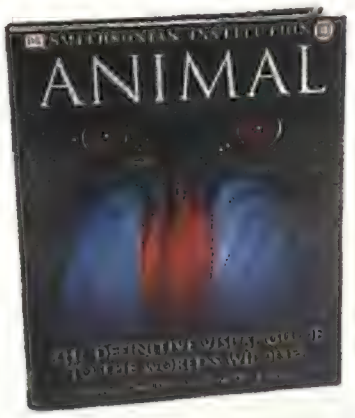
From ceramic vases to silk-screened kimonos, the works at the 20th annual Smithsonian Craft Show represent the creations of 120 artisans, chosen from 1,368 applicants. The exhibition and sale, at Washington, D.C.'s National Building Museum, run April 25-28.

All Creatures Considered

From his cluttered office in Washington's Museum of Natural History, Don Wilson describes the challenge that carried him, at least temporarily, from fieldwork in such exotic venues as Panama and Malaysia to making little pencil marks on page proofs. "The chance to introduce the work of field scientists to a worldwide audience was irresistible," says Wilson. "Dealing with mountains of text, countless illustrations—that was a kind of expedition in itself."

Wilson signed on four years ago as coeditor, with British researcher David Burnie, of *Animal: The Definitive Visual Guide to the World's Wildlife.*

This pioneering collaboration among the Smithsonian, a team of 70 leading zoologists and naturalists, and publisher DK has produced an authoritative omnibus of the earth's infinitely diverse creatures. "The most demanding thing about this project," says Wilson, an affable, silver-haired mammalogist who



specializes in chiropterology (the study of bats), "was the scale of the material, covering pretty much everything from amoebas to zebras." A stunning foray into the terrain charted by field scientists, *Animal* surveys some 2,000 species, from evolutionary development to habitat and behavior, documented in 3,000 color images.

Surprises, Wilson observes, abound. "You would think," he muses, "that, for example, we would have elephants figured out by now. However, just last year, molecular techniques revealed that elephants of the West African forests are in fact a different species from those on the savannas of East Africa."

The book provides information, he observes, "in much the way a scientist's mind works. I'm not a linear thinker—I enjoy ranging around material. The format of *Animal* allows a reader to take precisely that approach."

As for Wilson, much as he's taken to his role as editor, he's ready to return to the wild. He is headed for Peru where, along with a group of Latin American ecologists, he'll pursue his favorite subject of study, bats.

A Country Woman at Heart

Let us begin with a pair of brown shoes: sensible, heavy, leather clogs. Not just down-to-earth, but made for muck. They were worn by a woman who, in her middle age, finally shed the confines of a middle-class London upbringing for the fells and tarns of England's Lake District.

Worn by a woman who could comfortably converse about pig farming, trussed poultry or the accuracy of a butter scale. A woman who belonged to the Herdwick Sheepbreeder's Association and who once took time out from her honeymoon to take delivery of a bull at a train station.

A woman whose name was Beatrix Potter.

These hardy, workaday shoes, as it happens, are as emblematic of the life of Beatrix Potter as Peter Rabbit and Jemima Puddle-Duck are of her career as author and illustrator. Potter's passions and accomplishments—as an artist, writer, scientist and preservationist—unfold in "Peter Rabbit's Garden," now through May 26 at the Smithsonian's Museum of Natural History.

Occasioned by the centennial of *The Tale of Peter Rabbit*, the exhibition

TOP: DAVID LEVI; BOTTOM: FREDERICK WARNE & COMPANY

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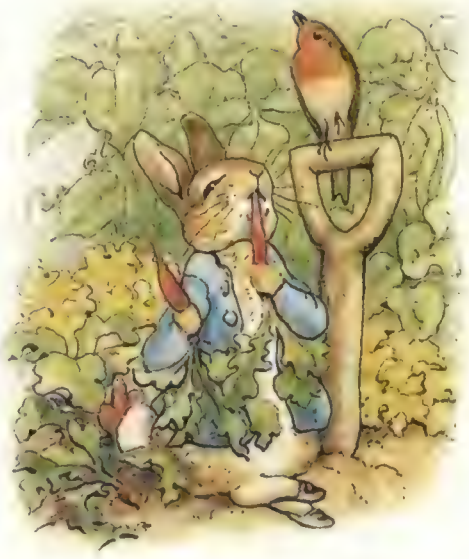
INFORMATION CENTER
Upon arrival, stop at the Smithsonian Information Center in the Castle (9 A.M.-5:30 P.M.). Most museums are open daily, 10 A.M.-5:30 P.M., except December 25. Members are invited to drop by the reception desk (9 A.M.-4 P.M.) to register for a behind-the-scenes tour and to hear about membership benefits.

offers a rare glimpse of Potter's original artwork—as well as her mud-encrusted clogs. Watercolor studies of a wolf's skull, a jumping spider and a ground beetle share gallery space with the original illustrations for *Peter Rabbit* and the 1893 letter—written to amuse the ailing child of a former governess—that formed the basis of the first of what Potter called her "little books." She produced 23 in all.

"The books obviously attract the most attention, but the unity of Beatrix Potter's life is represented by the love of nature," says Elizabeth Booth, curator of the show and collections manager of the Frederick Warne Archives. Potter's absorption in the natural world ran the course of her life, beginning with the acquisition of such childhood pets as lizards, water newts and ring snakes and culminating in the prescient stewardship of a



4,000-acre Lake District estate, bequeathed to Britain's National Trust upon her death in 1943.

"You really wouldn't think that she had it in her to [draw] those beautiful things," recalled an acquaintance. "All we associated her with were those clothes, or her Wellingtons," she said, "ragged clothes—and sheep."

Potter's lack of pride about the way she dressed was well known. "Because the weather is very windy and wet in the Lake District," Booth explains, recounting one of her favorite anecdotes, "Beatrix would use whatever was to hand to protect herself from the elements. On one occasion she was walking across the fells and needed some protection. She took an old piece of sacking, which she draped over her head. Later, she took great pleasure in telling the story of how a vagrant saw her walking along the road and shouted across to her, 'It's fine weather for the likes of thee and me, missus.'"

—Victoria Dawson

Rare Books Revealed

For viewers logging on to the new Smithsonian Institution Libraries Web site—www.sil.si.edu—a rare book is a matter of definition. With 15 titles from the Institution's vast holdings of 40,000 volumes now being made available electronically, "rare," at least for the first batch of books, is no longer synonymous with "hard to find."

Production manager Dave Holbert and technicians from the Digital Imaging Center, housed in a former factory on North Capitol Street in Washington, D.C., plan to scan in

FREDERICK WARNE & COMPANY; *PRODROMUS IN SYSTEMA HISTORICUM TESTACEORUM* BY J.J.N.A. SPALOWSKY, 1795

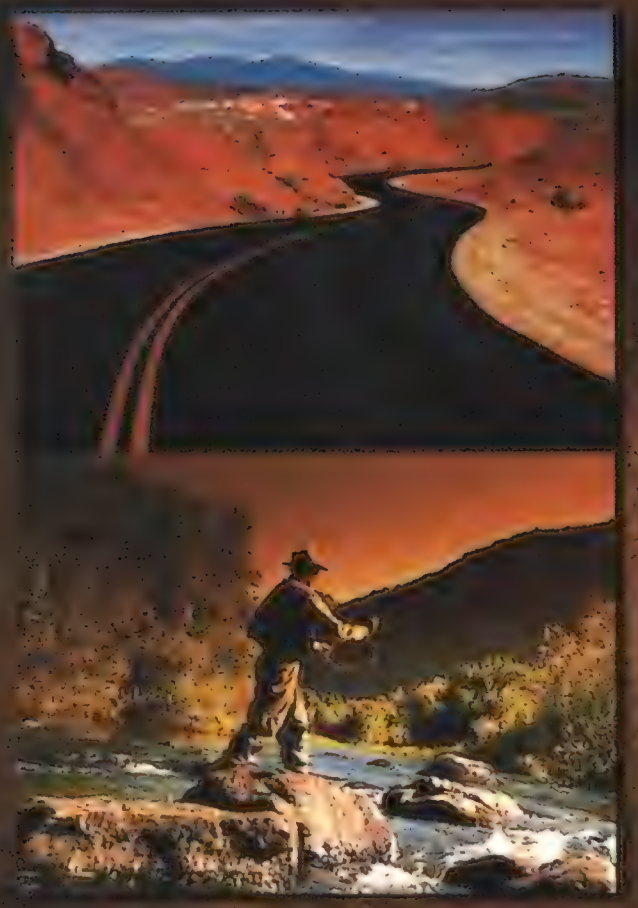
some 120 books over the next five years. "It's a painstaking process," says Holbert. "Even one page can take up to ten minutes to scan, so a whole book might require as much as a couple of months in production time."

Among the site's offerings are a 1795 treatise on conchology (the study of shells), lavishly illustrated with scores of hand-colored images (left), and a disquisition on astronomy, the work of the Danish researcher Tycho Brahe. Published in 1602, the 107-page compendium features the scientist's precise and elegant drawings of astronomical instruments. Brahe, we learn from the site, "set a new standard for accurate celestial observations."

An innovative page-turning function simplifies navigation. The books are scanned at resolutions as high as 600 dots per inch, or dpi, much higher than the 72 dpi that most monitors of today can handle. "We are archiving material," explains Martin Kalfatovic, head of the Smithsonian's New Media office, "so that future generations will be able to go back and adjust visual elements as the technology of the Web changes."

—Ann Geracimos

OUTBACK



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Wall of Memories

For the thousands who came to the trauma center at New York City's Bellevue Hospital Center in search of loved ones September 11, Bellevue served an unexpected function. Within days, a plywood construction barrier, surrounding the site of an addition to the hospital, was blanketed with queries about the missing.

The wall evolved into a memorial, replete with candles, flowers, poems and flags. Bellevue officials mounted signs designating it the Wall of Prayer. No one could imagine destroying the impromptu shrine. In November, the hospital contacted the Museum of the City of New York (MCNY), whose staff dismantled the wall and transported its 42 panels to a storage facility.

Nearly 170 feet long and 8 feet tall, it is now the largest object in the museum's 1.5-million-piece collection. But its fragility is of greater concern than its scale. The taped and stapled sheets of paper, swatches of red-white-and-blue yarn and other materials were intended to last weeks, not generations.

Faced with an extraordinarily complex preservation endeavor, the museum asked the Smithsonian's National Museum of American History for help.

When Lynne Gilliland, senior paper conservator at American History, examined the panels, she determined that the most immediate threat came from the tape used to attach flyers to the wall; the adhesive stains and disintegrates paper. "This is a huge tape-removal project," Gilliland says, "one of the largest I have ever seen." Another challenge is to preserve the hundreds of bulletins themselves, many of which were generated on home computers. Eventually, the sheaves of paper will likely be digitally scanned.

The faces on the flyers are of firefighters, executives, restaurant workers, police officers, mothers and fathers. "You look at that wall," says Robert R. Macdonald, director of MCNY, "and you see America staring back."

—Jason Edward Kaufman

Sight-seeing

For tourists and armchair travelers alike, the new *Official Guide to the Smithsonian* offers an excursion to the largest museum complex in the world. The guide, available in bookstores, surveys treasures such as this tomb-guardian sculpture, c. 750 (above), at the Arthur M. Sackler Gallery.

Across America, Mastering Math

Early in the 1800s, within a new nation's schoolhouses, American children worked diligently at their sums, scratching columns of numbers on slates. This exercise was itself a revolutionary undertaking. Traditionally, mathematics instruction had been confined largely to a privileged few.

Almost from the beginning, approaches to mastering this fundamental discipline have remained a matter of national debate. "Slates, Slide Rules and Software: Teaching Math in America," an exhibition that recently opened at the National Museum of American History, surveys the intersection of pedagogy and social history from Colonial times to the present. Curator Peggy Kidwell, who organized the show around artifacts in the museum's collections,

says she "wanted to place the everyday experience of learning math within the broader framework of American history."

The teaching implements tell the story: blackboards, introduced around 1800 as a tool for presenting material to increasing numbers of students; graph paper, developed by 1900, after a decade when the population of high school students had quadrupled; Cuisenaire rods, the colorful wooden manipulatives that accompanied the debut of the controversial "new math" in the post-*Sputnik* 1950s. And, lest we forget, that antediluvian relic known as a slide rule, rendered obsolete by the handheld electronic calculator.

A companion Web site is accessible at americanhistory.si.edu/teachingmath.

—Sandra Evans

SACKLER GALLERY, SI; MUSEUM OF THE CITY OF NEW YORK; NATIONAL MUSEUM OF AMERICAN HISTORY, SI

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TABLETS

Brief Summary (For full Prescribing Information, see package insert.)

INDICATIONS AND USAGE: CLARINEX Tablets are indicated for the relief of the nasal and non-nasal symptoms of seasonal allergic rhinitis in patients 12 years of age and older.

CONTRAINDICATIONS: CLARINEX Tablets are contraindicated in patients who are hypersensitive to this medication or to any of its ingredients, or to loratadine.

PRECAUTIONS: Carcinogenesis, Mutagenesis, Impairment of Fertility: The carcinogenic potential of desloratadine was assessed using loratadine studies. In an 18-month study in mice and a 2-year study in rats, loratadine was administered in the diet at doses up to 40 mg/kg/day in mice (estimated desloratadine and desloratadine metabolite exposures were approximately 3 times the AUC in humans at the recommended daily oral dose) and 25 mg/kg/day in rats (estimated desloratadine and desloratadine metabolite exposures were approximately 30 times the AUC in humans at the recommended daily oral dose). Male mice given 40 mg/kg/day loratadine had a significantly higher incidence of hepatocellular tumors (combined adenomas and carcinomas) than concurrent controls. In rats, a significantly higher incidence of hepatocellular tumors (combined adenomas and carcinomas) was observed in males given 10 mg/kg/day and in males and females given 25 mg/kg/day. The estimated desloratadine and desloratadine metabolite exposures of rats given 10 mg/kg of loratadine were approximately 7 times the AUC in humans at the recommended daily oral dose. The clinical significance of these findings during long-term use of desloratadine is not known.

In genotoxicity studies with desloratadine, there was no evidence of genotoxic potential in a reverse mutation assay (*Salmonella/E. coli* mammalian microsome bacterial mutagenicity assay) or in two assays for chromosomal aberrations (human peripheral blood lymphocyte clastogenicity assay and mouse bone marrow micronucleus assay).

There was no effect on female fertility in rats at desloratadine doses up to 24 mg/kg/day (estimated desloratadine and desloratadine metabolite exposures were approximately 130 times the AUC in humans at the recommended daily oral dose). A male specific decrease in fertility, demonstrated by reduced female conception rates, decreased sperm numbers and motility, and histopathologic testicular changes, occurred at an oral desloratadine dose of 12 mg/kg in rats (estimated desloratadine exposures were approximately 45 times the AUC in humans at the recommended daily oral dose). Desloratadine had no effect on fertility in rats at an oral dose of 3 mg/kg/day (estimated desloratadine and desloratadine metabolite exposures were approximately 8 times the AUC in humans at the recommended daily oral dose).

Pregnancy Category C: Desloratadine was not teratogenic in rats at doses up to 48 mg/kg/day (estimated desloratadine and desloratadine metabolite exposures were approximately 210 times the AUC in humans at the recommended daily oral dose) or in rabbits at doses up to 60 mg/kg/day (estimated desloratadine exposure was approximately 230 times the AUC in humans at the recommended daily oral dose). In a separate study, an increase in pre-implantation loss and a decreased number of implantations and fetuses were noted in female rats at 24 mg/kg (estimated desloratadine and desloratadine metabolite exposures were approximately 120 times the AUC in humans at the recommended daily oral dose). Reduced body weight and slow righting reflex were reported in pups at doses of 9 mg/kg/day or greater (estimated desloratadine and desloratadine metabolite exposure was approximately 50 times or greater than the AUC in humans at the recommended daily oral dose). Desloratadine had no effect on pup development at an oral dose of 3 mg/kg/day (estimated desloratadine and desloratadine metabolite exposures were approximately 7 times the AUC in humans at the recommended daily oral dose). There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, desloratadine should be used during pregnancy only if clearly needed.

Nursing Mothers: Desloratadine passes into breast milk, therefore a decision should be made whether to discontinue nursing or to discontinue desloratadine, taking into account the importance of the drug to the mother.

Pediatric Use: The safety and effectiveness of CLARINEX Tablets in pediatric patients under 12 years of age have not been established.

Geriatric Use: Clinical studies of desloratadine did not include sufficient numbers of subjects aged 65 and over to determine whether they respond differently from younger subjects. Other reported clinical experience has not identified differences between the elderly and younger patients. In general, dose selection for an elderly patient should be cautious, reflecting the greater frequency of decreased hepatic, renal, or cardiac function, and of concomitant disease or other drug therapy. (see **CLINICAL PHARMACOLOGY – Special Populations**).

Information for Patients: Patients should be instructed to use CLARINEX Tablets as directed. As there are no food effects on bioavailability, patients can be instructed that CLARINEX Tablets may be taken without regard to meals. Patients should be advised not to increase the dose or dosing frequency as studies have not demonstrated increased effectiveness at higher doses and somnolence may occur.

ADVERSE REACTIONS: In multiple-dose placebo-controlled trials, 1,838 patients received CLARINEX Tablets at doses of 2.5 mg to 20 mg daily, 659 patients received the recommended daily dose of 5 mg. In patients receiving 5 mg daily, the rate of adverse events was similar between CLARINEX and placebo-treated patients. The percent of patients who withdrew prematurely due to adverse events was 2% in both the CLARINEX and the placebo groups. There were no serious adverse events in these trials in patients receiving desloratadine. All adverse events that were reported by greater than or equal to 2% of patients who received the recommended daily dose of CLARINEX Tablets (5.0 mg once-daily), and that were more common with CLARINEX than placebo, are listed in Table 3.

Table 3

Incidence of Adverse Events Reported by ≥ 2%
of Patients in Placebo-Controlled, Multiple-Dose Clinical Trials

Adverse Experience	CLARINEX Tablets 5.0 mg (n=659)	Placebo (n=661)
Pharyngitis	5%	2%
Dry Mouth	4%	2%
Somnolence	3%	2%
Fatigue	3%	2%
Influenza-Like Symptoms	2%	1%
Myalgia	2%	<1%
Nausea	2%	1%
Dizziness	2%	1%
Dry Throat	2%	1%

The frequency and magnitude of laboratory and electrocardiographic abnormalities were similar in CLARINEX and placebo-treated patients.

There were no differences in adverse events for subgroups of patients as defined by gender, age, or race.

The following spontaneous adverse events have been reported during the marketing of desloratadine: tachycardia, and rarely hypersensitivity reactions (such as rash, pruritus, urticaria, edema, dyspnea, and anaphylaxis), and elevated liver enzymes including bilirubin.

DRUG ABUSE AND DEPENDENCE: There is no information to indicate that abuse or dependency occurs with CLARINEX Tablets.

OVERDOSAGE: Information regarding acute overdosage is limited to experience from clinical trials conducted during the development of the CLARINEX product. In a dose ranging trial, at doses of 10 mg and 20 mg/day somnolence was reported.

Single daily doses of 45 mg were given to normal male and female volunteers for 10 days. All ECGs obtained in this study were manually read in a blinded fashion by a cardiologist. In CLARINEX-treated subjects, there was an increase in mean heart rate of 9.2 bpm relative to placebo. The QT interval was corrected for heart rate (QT_c) by both the Bazett and Fridericia methods. Using the QT_c (Bazett) there was a mean increase of 8.1 msec in CLARINEX-treated subjects relative to placebo. Using QT_c (Fridericia), there was a mean increase of 0.4 msec in CLARINEX-treated subjects relative to placebo. No clinically relevant adverse events were reported.

In the event of overdose, consider standard measures to remove any unabsorbed drug. Symptomatic and supportive treatment is recommended. Desloratadine and 3-hydroxydesloratadine are not eliminated by hemodialysis.

Lethality occurred in rats at oral doses of 250 mg/kg or greater (estimated desloratadine and desloratadine metabolite exposures were approximately 120 times the AUC in humans at the recommended daily oral dose). The oral median lethal dose in mice was 353 mg/kg (estimated desloratadine exposures were approximately 290 times the human daily oral dose on a mg/m^2 basis). No deaths occurred at oral doses up to 250 mg/kg in monkeys (estimated desloratadine exposures were approximately 810 times the human daily oral dose on a mg/m^2 basis).

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AN EXHIBITION AT WASHINGTON'S NATIONAL GALLERY OF ART TAKES A FRESH LOOK AT ONE OF SPAIN'S MOST CELEBRATED ARTISTS AND THE WOMEN HE PAINTED

Goya & His Women

BY STANLEY MEISLER

Goya (his hat fitted with candlesticks in a c. 1794 self-portrait) often worked by candlelight. In his 1797 painting of the recently widowed Duchess of Alba (left), of whom he was likely enamored, she points to the words "Solo Goya" and wears two rings—one inscribed "Alba," the other "Goya."

FOR TWO CENTURIES, THE POWERFUL, BEAUTIFUL AND mysterious paintings and prints of Francisco Goya have delighted admirers and confounded detractors. The 19th-century French poet Charles Baudelaire, who was most familiar with Goya's darker works, depicted them in *Les Fleurs du Mal* as "nightmare, full of things unknown, of . . . witches' sabbaths, of old women looking into mirrors and naked girls stretching their stockings tight to tempt demons." More recently, 20th-century French novelist André Malraux proclaimed that "modern art begins" with the great Spanish artist.

One aspect of Goya in particular—his portraits of women and his relations with them—has inflamed imaginations for generations. An early biographer, French critic Laurent Matheron, claimed that Goya's wife, Josefa, had to suffer the humiliation of a husband who had "scandalous adventures . . . with the most illustrious women." In his 1951 novel *This Is the Hour*, German-born writer Lion Feuchtwanger portrayed a tempestuous love affair between Goya

A design of "my own invention" Goya boasted of *The Picnic* (1776), his full-scale "cartoon" for a tapestry destined for the dining room of the Pardo Palace. Peopled with stock characters from the theater of the day, the work presents a tableau of country pleasures.

and the Duchess of Alba, a powerful aristocrat whose family owned vast tracts of land in Andalusia in southern Spain. The novel culminates with the duchess posing nude for Goya's shocking (at the time) painting, the *Naked Maja* (p. 51). The artist's infatuation with the duchess also plays a key role in *Goya in Bordeaux*, the 2000 film by Spanish director Carlos Saura.

There is little evidence for Goya's infidelities, and most modern scholars discount them as conjecture. Yet the stories are circulating again as the result of a lavish exhibition, "Goya: Images of Women," that opened at the Prado Museum in Madrid last fall and is now on view at the National Gallery of Art in Washington, D.C. The show, which features more than 100 paintings, tapestries, prints and drawings, is sponsored by the Catherine B. Reynolds Foundation and General Dynamics. It closes June 2. (Janis Tomlinson, a leading specialist on Goya, is the gallery's guest curator for the exhibition.)

Goya lived at the time of the French Revolution—a period during which the role of women, at least in urban and upper-class society, began to change. After the revolution, many upper-class women emerged from the seclusion of their homes. They took to gathering in squares and promenades and sometimes joined organizations that cared for the sick and poor. Influential women such as the Duchess of Alba hosted salons where men and women could meet to discuss literature and to gossip.

While Goya tried to portray some of the more liberated women of his time, he was more ironic commentator than feminist, and his attitude toward women is both ambivalent and complex. As Francisco Calvo Serraller, the Prado's curator of the show, puts it, "Woman is goddess and witch for Goya, sinner and saint, lover and procurer, worker and aristocrat, mysterious and enigmatic, tender and maternal, greedy and, when necessary, as tough as a man."

In his many self-portraits, Goya appears as a tall, full-faced, vigorous but anxious-looking man. What set him apart from the typical bourgeois of his era, however, was his genius—that and

PRADO MUSEUM, MADRID; P. 46 HISPANIC SOCIETY OF AMERICA, NEW YORK; P. 47 MUSEUM OF THE ROYAL ACADEMY OF FINE ARTS OF SAN FERNANDO, MADRID

"Woman is goddess and witch for Goya, sinner and saint, lover and procurer, worker and aristocrat."

his intense ambition and incredible will. Fiercely independent, he was an indefatigable innovator, always seeking new ways of depicting the world around him and the demons within. It was this incessant search for newness that led Malraux and others to see him as a forerunner of modern art.

Born March 30, 1746, in his mother's native village of Fuendetodos in the hardscrabble farmland 35 miles south of Saragossa, the capital of the Spanish province of Aragon, Goya spent his childhood in Saragossa, where his father was a master gilder. Since gilders worked closely with the painters and sculptors who decorated the local churches, Goya grew up with artists all around him. According to one story, a friar came upon the youngster drawing a pig on a wall and urged his father to provide the boy with art lessons. In any case, Goya was apprenticed at the age of 14 to a painter regarded as the best teacher in the city. Another apprentice, Francisco Bayeu, would soon become a court painter in Madrid—one of a small group of prestigious, official artists in the employ of the royal family.

Goya later studied in Rome and then won a commission to paint a fresco on the ceiling of a small chapel choir in Saragossa's Pilar cathedral. In 1773, at the age of 27, he felt sufficiently established to marry Bayeu's 26-year-old sister, María Josefa. The couple moved two years later to Madrid, where Goya—most likely recommended by Bayeu—started work as an artist preparing what were known as "cartoons" for the Royal Tapestry Factory.

Cartoons were full-size canvases painted by artists solely for weavers at the factory to replicate in tapestries to be hung on the walls of royal palaces. The work was lucrative for the artists. From 1778 to 1780, Goya earned a total of 82,000 *reals* for his cartoons—more than five times the annual salary of a court painter. But cartoon work was frustrating. Artists had to guard against making the figures or tonalities too detailed for weaving. Goya was forced to alter one cartoon after the factory director complained that his weavers had been upset by "too many ornamental hair nets, belts, braids, veils and other bagatelles." Another source of frustration was the cartoonist's lowly status. The tapestry—not the canvas painted by the artist—was regarded as the work of art. After the weavers finished a tapestry, workmen stashed the cartoons away. Four decades after Goya's death, government officials found 45 of his cartoons stored in the basement of the Royal Palace in Madrid.

But the medium's limitations did not prevent Goya from being original and different. Instead of the hunting or mythological motifs usually depicted on royal tapestries, he painted such everyday scenes as children at play, street fairs, weddings, market days and even drunken brawls, sometimes adding sexual innuendo—a glance, a gesture—to the picture. He especially liked to portray male *majos* and female *majas*, the brazen and flirtatious lower-class youths who wore flashy clothes rather than fashionable French finery.

In the cartoon *The Picnic*, for example, a maja selling oranges encounters five picnicking majos who appear to have consumed several bottles of wine. The heavy-lidded young lady casts a coquettish look at one of the men and points away from the scene in a gesture that hints she may have more to offer than oranges. Goya's tapestries pleased the young heirs to the throne, Prince Charles and his wife, María Luisa, who displayed them on the walls of the Pardo Palace, their home outside Madrid.

"I couldn't ask for more insofar as their liking my work goes," Goya wrote to Martín Zapater, a childhood friend, after showing some cartoons to King Charles III and the princely couple.

Queen María Luisa and King Charles IV (in a detail from Goya's 1800 portrait of the family) had been longtime patrons of the by then totally deaf painter.

Aristocrats and other members of the royal family soon commissioned Goya to do their portraits. And when the prince ascended to the throne at age 40 as King Charles IV in 1788, he appointed the 42-year-old Goya a court painter.

While Goya's career advanced, his wife's health declined, mainly from a succession of pregnancies. Josefa bore six children and had several miscarriages. Their son Javier, born in 1784,

PRADO MUSEUM, MADRID

would be the only child to survive to adulthood. "Let us hope this one will get a chance to grow," Goya wrote Zapater. Goya's letters reveal little about Josefa, and his only documented drawing of her depicts a woman, at age 58, fleshy, weary and domesticated.

Goya's appointment as a court painter enhanced an already swelling reputation. He had learned to infuse his portraits with a realism that somehow pleased his sitters, no matter how plain or tired he made them look. For example, in his 1784 painting *The Family of the Infante Don Luis*, a group portrait of the family of the king's brother, Don Luis looks vacant and old as he sits at a card table, while his younger wife, María Teresa, attended by her hairdresser, looks vital and in control. Female sway over the court was a recurring theme in Goya's work. In *The Family of Charles IV*, painted a few years later, there's no doubt that the self-confident if plain-featured Queen María Luisa rules the roost, while the passive King Charles IV stands forlornly nearby. Goya's harsh realism has led some to believe that he was openly mocking Spanish royalty. But Tomlinson, the American curator, says that Goya was much too ambitious to risk his career by satirizing his own patrons.

Disaster struck in late 1792. On a trip to Andalusia, Goya fell ill, possibly from meningitis. Temporarily paralyzed, he was carried to a friend's home in Cadiz, where he slowly recuperated. For months, he would lose his balance when he stood up. He could hear a buzzing in his ears but nothing else. "I am on my feet," he wrote his friend Zapater, "but so bad that I don't know if my head is on my shoulders." When he returned to Madrid more than six months after taking sick, he was totally deaf and would remain so for the rest of his life. He was then 47 years old.

The affliction changed Goya's life. His work took on more weight, sometimes reflecting a sardonic view of the world. He searched continuously for new subject matter, new ways of applying his art. We do not know how he conversed—whether he read lips or whether friends and patrons used sign language or scribbled words on paper for him. But he kept up his many friendships and worked as hard as ever. In fact, it was not long after going deaf that he entered his ambiguous relationship with the Duchess of Alba.

The vivacious duchess had developed a reputation as an alluring, uninhibited socialite. "The Duchess of Alba possesses not a single hair that does not awaken desire," a French traveler wrote in 1796. "Nothing in the world is as beautiful as she." In 1795, when the duchess was 33, Goya was commissioned to paint formal portraits of her and her husband. One day, Goya wrote to a friend, before the posing had even begun, she burst into his studio demanding that he "paint" her face. After he added some color to her makeup, she rushed out, leaving the artist to ponder her brazenness. When the duchess's husband died a year later, Goya spent several weeks at her castle on the Andalusian coast. It is not clear whether he was invited to console or to paint her. In any case, he sketched her several times in his notebook, catching her in natural poses—arranging her hair, for example, and playing with her adopted child. In 1797, he painted a full-length portrait of her in mourning, wearing a black lace mantilla over a gold blouse. It is hard to look at this painting (p. 46) without concluding that the artist was in love with his subject. In it the duch-

Goya painted María Teresa de Borbón y Vallabriga in 1783 as a child (top) and 17 years later as the Countess of Chinchón (middle), the pregnant wife of Prime Minister Manuel Godoy. A scene (bottom) from Goya's *Los Caprichos* series offers a cynical view of marriage.

NATIONAL GALLERY OF ART, WASHINGTON D.C. AILSA MELLON BRUCE COLLECTION; PRADO MUSEUM, MADRID (2); P. 51 PRADO MUSEUM, MADRID

Unlike classical nudes in most earlier European paintings, Goya's maja flaunted her sexuality.

ess points downward at sand on which the words "*Solo Goya*," Spanish for "Only Goya," have been traced.

Adding fuel to speculation, Goya kept the painting for himself. Still, his biographer Jeannine Baticle maintains that it's unlikely that the artist's feelings were reciprocated. Tomlinson concurs. Although "we'll probably never know the exact nature of the relationship," she says, the difference in social status between the two makes a love affair improbable. Both Baticle and Tomlinson also reject the idea that the duchess would have posed for the *Naked Maja*.

Goya apparently painted this controversial nude in 1797-1800 for Manuel Godoy, Charles IV's powerful prime minister, who kept it in his study. (Goya also painted a clothed version, which the minister may have hung over the nude in order to conceal it.) The *Naked Maja*'s most likely model was Godoy's young mistress, Pepita Tudó. But she was not his only partner; Godoy owed his swift rise to power to his role as a favorite and presumed lover of Queen María Luisa. And at the behest of the royal family, he had married the future Countess of Chinchón, a cousin of the king and a woman whom Goya painted both as a child and as a fragile and saddened wife. Unlike classical nudes in most earlier European paintings, Goya's maja flaunted her sexuality. The painting was considered so shocking that officials of the Spanish Inquisition demanded an explanation when they discovered the work years later. Proceedings against the artist were probably dropped, however, since there is no record of his ever coming before the Inquisition.

As the new century neared, Goya, still esteemed as a portrait painter, began to find commissioned works too confining. Saying he wanted to allow "caprice and invention" full rein, he decided to rely more on his imagination. In 1799 he published a series of 80 etchings titled *Los Caprichos* (*The Caprices*), in which he examined society with a cold eye and bitter wit. The artist was convinced, according to a contemporary advertisement for the collection, "that it is as proper for painting to crit-

The most renowned of Goya's "gentlemen's paintings," the *Naked Maja* (detail) was secreted for many years in its owner's private study. The work, which elicited a subpoena from the tribunal of the Inquisition in 1815, is now regarded as a masterpiece of the female nude.

Once thought to be Goya's wife, the young woman in this c. 1814 work probably isn't.

Goya's elegant portrait of Thérèse-Louise de Sureda emphasizes her serenity and reserve.

PRADO MUSEUM, MADRID; NATIONAL GALLERY OF ART, WASHINGTON, D.C. GIFT OF MR. AND MRS. P.H.B. FRELINGHUYSEN IN MEMORY OF HER FATHER AND MOTHER, MR. AND MRS. H. O. HAVEMEYER.

icize human error and vice as for poetry and prose to do so." Though the series was not a big seller, its reputation spread, and it has astounded and excited admirers for almost two centuries.

In the series, most of the women are brides, prostitutes, majas, witches and gypsies. Many of the plates, accompanied by Goya's ironic titles and biting captions, deal—usually negatively—with relations between the sexes. In *What a Sacrifice!* a bowlegged, humpbacked man gloats before his demure betrothed while her troubled parents and a beaming priest stand in back. Although unattractive, "he is rich," reads the caption, "and, at the cost of the freedom of an unhappy girl, the security of a hungry family is acquired." In *Two of a Kind*, a young dandy arranges an assignation with a prostitute while two old hags, evidently procurers, converse in the background. "Wherever the men are depraved," Goya comments, "the women are the same." Other plates are more complex, even surreal, swirling with goblins and monsters.

Los Caprichos apparently did not offend royalty, and the king promoted Goya to first court painter that same year. By then, Goya was the most celebrated portrait painter in Spain. The chasm between his formal portraits of women in the early 19th century and his biting sketches of them in *Los Caprichos* is immense. The portraits, while free of any fawning flattery, treat beauty with sensitivity, respect and psychological insight. The current exhibition offers a generous display of the portraits, including two of the finest—of Thérèse-Louise de Sureda, the delicate and aloof French wife of the chief of the royal porcelain works, and Sabasa García, the pale and serene niece of the foreign minister. Neither woman wears any jewelry, and their beauty is enhanced by the lack of ornamentation.

Goya sometimes dashed off a portrait without much care. A prospective client asked a mutual friend in 1805 to intercede with the painter to ensure he did not turn out "a hasty horror" but painted the portrait "the way Goya can do it when he really wants." Deafness made it difficult for the artist to communicate effectively with clients he did not know well. This may account for the disparity between his most psychologically insightful portraits and those that merely capture a likeness.

As Goya entered his 60s in 1806, he seemed to feel the need to take on bolder themes. He returned to etchings—but

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Women play a prominent role in these scenes—as battlers, mothers, mourners and victims of violence.

of a more realistic kind—during Spain's war against Napoléon. When mobs forced the abdication of King Charles IV in 1808, Napoléon took advantage of the chaos by sending in French troops and anointing his brother, Joseph Bonaparte, as Spain's new king. A bloody uprising against the French followed and kept on until British, Spanish and Portuguese troops, led by the Duke of Wellington, defeated the French in 1813.

What Courage!, the most famous image from Goya's *Disasters of War* series, depicts Agustina of Aragon heroically manning a cannon during the siege of Saragossa in 1808.

Goya's series of etchings *Disasters of War*, created from 1810 to 1815, chronicled the terrible effects of war on civilians. Unusual for their time, the 80 plates make no attempt to glorify war or, for that matter, even to please the eye. Women play a prominent role in these scenes—as battlers, mothers, mourners, prostitutes and victims of violence. For reasons unknown, perhaps because they were too graphic, the plates were not published until 1863, almost a half century after their creation.

Josefa had died in June 1812 at the age of 65. And although the widowed Goya lived alone in his apartment, his son, Javier, a far less accomplished artist, resided nearby with his wife and child. Goya's output continued at an astonishing pace. Over the next few years, he produced the *Tauromaquia* (*Bullfighting*) series of etchings and the *Disparates* (*Follies*) series—a puzzling satire of human foibles—and painted such masterpieces as *The Colossus* and *Majas on a Balcony*.

In 1819, at the age of 72, Goya purchased a new home, the Quinta del sordo (Country House of the Deaf Man, after a previous owner who was also deaf). Leocadia Weiss, a 30-year-old unhappily married relative of Goya's daughter-in-law, moved into the house as well. Some gossips suspected that her youngest child, Rosario, was Goya's daughter, but Tomlinson says there is no evidence that this is so.

Goya proceeded to paint the walls of his home with scenes of extraordinary invention, all dark in mood and tone. Heavy with symbolism, these "black paintings," as they are known, were painstakingly transferred to canvases after his death. They now hang in the Prado and are considered to be among his finest and most enigmatic works. Depicting such scenes as Saturn devouring his child, and Judith cutting off the head of Holofernes, these paintings are believed to reflect Goya's response to the puritanical regime of King Ferdinand VII, who, following the defeat of Napoléon, ruled as an absolute monarch. (Though Goya refused to take part in political activity, many of his reformist friends fled to Bordeaux in France.) In 1824, at age 78, Goya requested leave from his duties as court painter to recuperate from illness at mineral baths in France.

But instead of taking the waters, the artist joined the expatriate group in Bordeaux. He arrived "deaf, old, awkward and weak, and without knowing a word of French," Leandro Fernández de Moratín, a fellow exile, wrote to a friend. Still, de Moratín added, Goya was "happy and desirous of seeing the world." Leocadia and Rosario soon joined him. He produced paintings, lithographs, drawings and miniature works on ivory. He died in Bordeaux on April 16, 1828, at age 82.

Some may lament the scholarship that discounts Goya's love affair with the Duchess of Alba and dispels his image as an antiroyalist liberal. But Tomlinson believes that we are left with something far more vital—the vastness, variety and complexity of the art itself: "There are very few artists who were as proficient in as many media, who were constantly experimenting with new themes and who were always driven to go beyond where they'd been before."

Stanley Meisler became a Goya fan while working as a newspaper correspondent in Spain in the 1970s.

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BY DAVID A. DEVOSS

BLENDING STATECRAFT AND SPORT, TABLE TENNIS MATCHES BETWEEN AMERICAN AND CHINESE ATHLETES SET THE STAGE FOR NIXON'S BREAKTHROUGH WITH THE PEOPLE'S REPUBLIC

Ping-Pong Dip

A year after a U.S. table tennis team accepted China's surprise 1971 invitation to play in Beijing (above), a People's Republic of China team arrived in Detroit on April 12, 1972, for the first stop of a ten-city tour (inset).

lomacy

THIRTY YEARS AGO: APRIL 1972. THE Cold War is entering its 26th year with no end in sight. In Vietnam, despite President Nixon's announced intention of bringing the troops home through his "Vietnamization" of the war, American combat deaths surpass 57,000.

On April 12, a Pan Am 707, its sides stenciled with Chinese characters spelling Friendship Clipper, lands in Detroit, Michigan, carrying the People's Republic of China's world champion table tennis team. The team has been invited to America by the U.S. Table Tennis Association (USTTA) for a series of matches, themed "friendship first, competition second."

That lofty sentiment, however, does not prevent a conservative group called Breakthrough from showering the "Red Chinese" with leaflets reading "Smash Communism, support Christian resistance" at the team's first appearance in Detroit's Cobo Hall April 14, 1972. Then a curious thing happens. The capacity crowd of 11,000 boos the protesters. More remarkably: the audience applauds the Chinese athletes, establishing a pattern of protest and applause that would follow the visitors as they traveled over the next two weeks to ten cities around the country.

In Detroit, the superior Chinese team returned the crowd's graciousness by vigorously applauding when the Americans managed to keep the ball in play. Sometimes, rather than slam the ball at speeds reaching 100 miles an hour, Chinese players delicately lobbed their returns. "They wanted to make the matches look good," says Dell Sweeris, the only American player to win in Detroit. "And I was playing well enough to take advantage of the opportunity." Sweeris owns an accounting firm today.

But there was little holding back at the University of Maryland, where the Chinese, spurred by chanting protesters and signs reading "Reds Off Campus," racked up ten consecutive victories. "The Chinese seem out for blood tonight," said Tim Boggan, then vice president of the U.S. Table Tennis Association. In Memphis, Tennessee, the

In Detroit, Dell Sweeris (foreground) defeated Liang Ke-liang for the night's lone U.S. win.

Americans managed an unexpected tie. When the competition finally ended in Los Angeles, the match score was lopsided: China 34, United States 12.

"The skill level of the Chinese players was far superior," says Connie Sweeris, Dell's wife and a member of the 1971 and 1972 U.S. teams, who now directs a preschool and child care center. "But these were friendship matches. They gave up points." (Today the Chinese remain the best in the world while U.S. players continue to struggle.)

The era of Ping-Pong diplomacy had begun 12 months earlier when the American team—in Nagoya, Japan, for the World Table Tennis Championship—got a surprise invitation from their Chinese colleagues to visit the People's Republic. *Time* magazine called it "The ping heard round the world." And with good reason: no group of Americans had been invited to China since the Communist takeover in 1949.

For most Americans, mainland China was a black hole glimpsed only occasionally in grainy newsreel footage. America's experts were called China Watchers, the name conveying their outsider status. "We combed through academic journals, analyzed news dispatches and tried to buttonhole every person we could find who actually had been to China," recalls Morton Abramowitz, one of their number.

With the exception of author Edgar Snow, a friend of Mao Tse-tung's since the 1930s, not a single politician, journalist or army general had been inside the country for more than 20 years. The 15 Americans who crossed over from Hong Kong four days after receiving their invitation were hardly seasoned diplomats. (Nor were they all that good at Ping-Pong; of the 39 national teams of the International Table Tennis Federation, the United States ranked 28th.) Ranging in age from 15 to 59, the members of the group included two teenage girls, a housewife from Grand Rapids, an IBM systems engineer, a metal pat-

The U.S. team's surprise visit to the Great Wall was coverworthy in April 1971.

tern worker, one auto executive, a chemist, a university professor, one U.N. employee and two 19-year-old male college students. Three were recent immigrants—from Guyana, South Korea and the Dominican Republic. Graham Steenhoven, president of the USTTA, accompanied the team.

Why had they been invited? Since the spring and summer of 1969, when Soviet and Chinese troops repeatedly clashed along their common border, Peking (now Beijing) had worried about Moscow's intentions. Ongoing unrest between Pakistan and India added uncertainty. The Chinese felt that by opening a door to the United States, they could put their hostile neighbors on notice about a possible shift in alliances.

Washington could have blocked the visit, but, in fact, the United States welcomed it. As a Presidential candidate in 1967, Nixon had written: "We simply cannot afford to leave China outside the family of nations." Since his election the following year, he had been both overtly and covertly signaling that he would welcome rapprochement.

For the American athletes, entering China was like stepping through the looking glass. At the Shumcun border crossing, the Americans heard a recording of Mao's anthem to Communism, "The East Is Red." Outside a train station in Canton (now Guangzhou), a sign exhorted: "People of the world unite and defeat the U.S. aggressors and all their running dogs!" While the Americans waited for their flight to Peking at the Canton airport, uniformed women brandishing rifles and swords performed songs from a revolutionary ballet. Rufford Harrison, international chairman of the USTTA, asked who the women were. "Oh, just the airport staff amusing themselves," his Chinese interpreter deadpanned. "They do this before every flight."

Between matches, which the Chinese were careful not to win by scores too lopsided, the Americans were treated like visiting royalty. Trips to the Great Wall and the Qing Dynasty Summer Palace were interspersed with banquets and operatic performances.

"Some of our players were apprehensive during the trip," recalls team official Tim Boggan, a retired Long Island University English professor now working on a history of the U.S. Table Tennis Association. "One person worried because the Chinese were atheists. But we worked hard because we knew our journey was symbolic."

When one of the Chinese interpreters learned that George Brathwaite worked as a documents clerk for the United Nations, he asked if Brathwaite thought China would be accepted in the U.N. at the next General Assembly. "I told him that I couldn't answer the question," Brathwaite recalls. Then the interpreter asked if Brathwaite would vote for China's admission. "Very diplomatically," says Brathwaite, "I answered that I would vote for all nations to be members of the U.N." The interpreter silently walked away.

Chinese guides sought their visitors' impressions of China. Ten-time U.S. Open table tennis champion Dick Miles returned one such question to his interpreter: "What do you think of Americans? Have you ever seen an American before?"

TIMEPIX; PP. 58, 59 FRANK FISCHBECK/TIMEPIX;
PP. 59-60 AP/WIDE WORLD PHOTOS (2)

Chou was asked what he thought of the hippie movement. It was not a topic for which he had prepped.

After a hesitation, Miles recalls, "He looked me right in the eye. 'On the battlefield,' he said. 'In the Korean War.'"

The Chinese crowds responded particularly enthusiastically to Glenn Cowan, a 19-year-old student and self-proclaimed hippie from Santa Monica, California. He sported a corona of curls that he battened down with a red bandanna during matches and a T-shirt decorated with a peace symbol.

At a banquet inside the Great Hall of the People just off Tiananmen Square, Premier Chou En-lai told the group: "Exchanges between our two countries have been cut off for a long time but now, with your acceptance of our invitation, you have opened a new page in the relations of the Chinese and American people."

Chou En-lai, left, Nixon and Chang Chun-chiao dived into a host of tricky issues in 1972.

After bantering with several of the newsmen accompanying the U.S. delegation, Chou asked if any of the American players had a question. Cowan asked what the premier thought of America's hippie movement. It was not a topic for which Chou had prepped. "Youth must try different kinds of ideologies," he finally said. "When we were young it was the same, too."

By the time the Americans returned home, the relationship between the United States and China had itself become something of a Ping-Pong game. Nixon returned volley by announcing plans to remove a 20-year-old trade embargo on China. Peking countered by accepting an invitation for the Chinese team to visit America the following year.

Today, Gerald Ford, then the Republican House minority leader, says that the reciprocal visits were just what American diplomacy needed. "Chinese-American relations were frozen because of the long-standing debate over Taiwan and Washington's antagonism toward Communist philosophy," he recalls. "Ping-Pong was an outside force that shook up State Department bureaucrats and their static view of the world. Relations between the two countries improved because ordinary citizens got involved." In fact, one Detroit newspaper even suggested lending Steenhoven "to the government to give lessons in diplomacy to our ever-fumbling State Department."

But former U.S. Ambassador to China James R. Lilley, now a senior fellow at the American Enterprise Institute, believes the breakthrough owed as much to statecraft as to serendipity. "Ping-Pong diplomacy did not change U.S. policy," he says. "It succeeded because Chou, Nixon and [National Security Advisor Henry] Kissinger already had set the stage for rapprochement. The trips were a selling device to get the average guy on board."

In any case, within a month of the U.S. trip to China, the Soviet Union—fearing that Washington's China tilt might lead to the USSR's isolation—agreed to begin negotiations with the United States on an antiballistic missile treaty. And Nixon, not wanting to lose momentum, yet not fully trusting his State Department establishment, turned to Kissinger, who began back-channel negotiations with Chou. On July 9, 1971, Kissinger slipped secretly into Peking to arrange a Presidential visit to China. On July 15, 1971, in a television address that would stun most Americans, Nixon announced that he would indeed visit China the following year.

Seven months later, in February 1972, Nixon's journey to China would become one of the most important events in U.S. postwar history. Taking place while America's war with China's neighbor, Vietnam, continued to rage, the meeting was a bold move by both sides. It framed the still ongoing debate over Taiwan, eased tensions over Vietnam and found common ground with regards to a Soviet threat. As Americans huddled around their TV sets, the three then-existing networks broadcast live images of Nixon and Chou toasting each other in the banquet hall. In a joint communiqué issued at the end of the ten-day trip, the two leaders pledged to seek the normalization of relations and new opportunities for trade. "Never before in history has a sport been used so effectively as a tool of international diplomacy," said Chou. For Nixon, it

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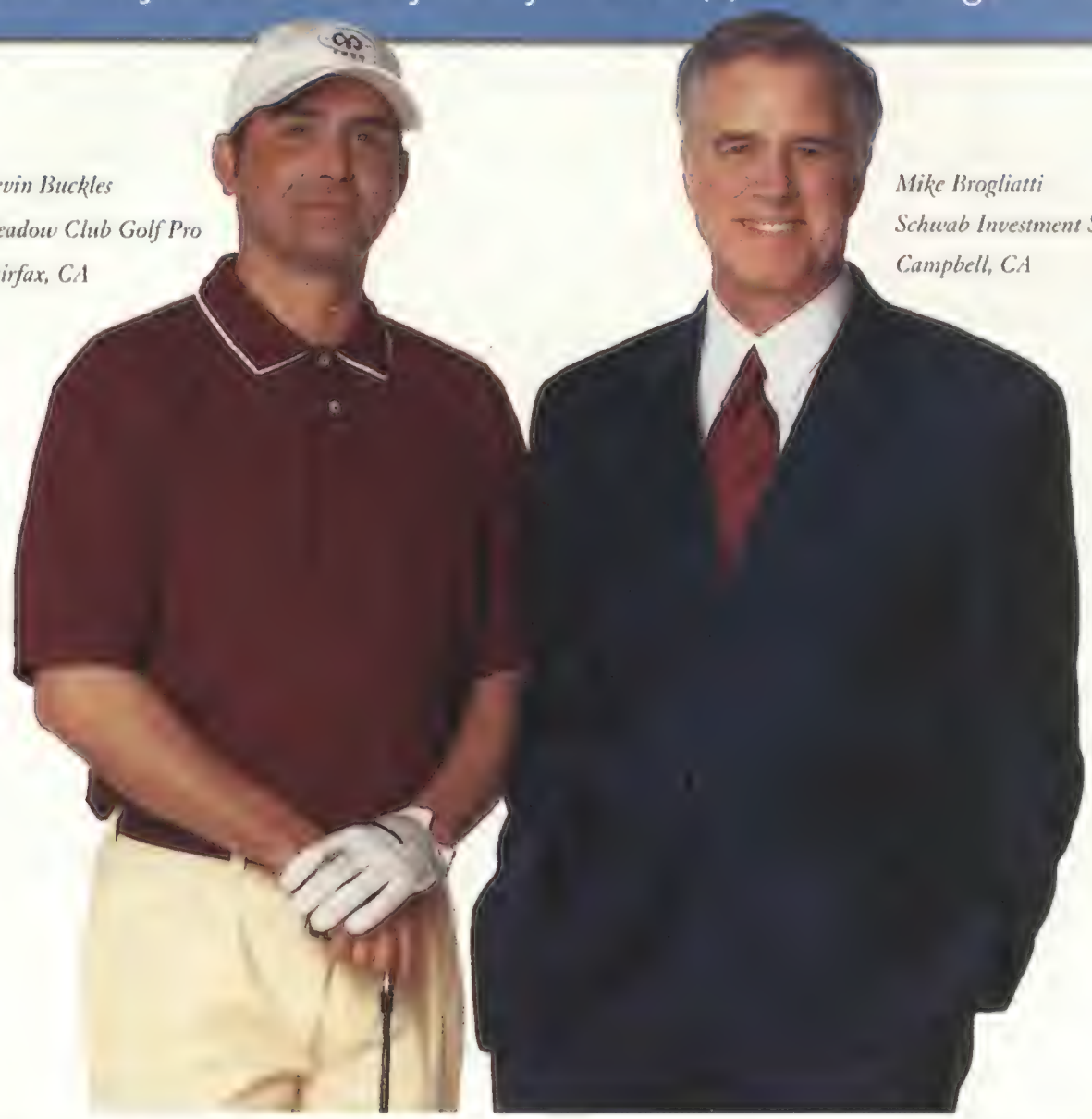

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"The big winner is friendship," said Nixon to the Chinese team during an April 18, 1972, meeting in the White House Rose Garden.

was "the week that changed the world" and the highlight of a Presidency soon to be undone by his complicity in the cover-up of a break-in at the Watergate Hotel four months later.

Other attempts have been made over the past 30 years to use sports as a tool of diplomacy, but never so successfully. In 1975, Baseball Commissioner Bowie Kuhn proposed a game between the United States and Cuba that he thought would "help break the ice" between the two adversaries. But Kissinger, then President Ford's Secretary of State, nixed the idea. Finally, in 1999, the Baltimore Orioles traveled to Havana to play the Cuban All Stars, but the moment for baseball diplomacy had gone.

In February 1998, Iranian President Mohammad Khatami permitted a U.S. wrestling team to attend a tournament in Tehran. The wrestlers were the first American athletes to visit Iran since the 1979 Islamic revolution, and government officials accorded them VIP treatment. But diplomatic momentum was lost when Iranian wrestlers were fingerprinted by the Immigration and Naturalization Service upon their arrival in Chicago on a reciprocal visit to the United States two months later.

For Jack Howard, captain of the historic Ping-Pong team, fame proved fleeting. Three months after returning from China, he found himself in a bar with a pal. "My friend approached [two attractive women] and, by way of introduction, said, 'This is Jack Howard who went to Red China.' She asked: 'Who went where?'"

Connie Sweeris remembers that by the time the Chinese came to the United States, the American players had been relegated to supporting roles. Although both teams were invited to the White House, the Americans were kept outside behind ropes while the Chinese went inside to meet the President. "When Nixon and the Chinese came outside for photographs," Sweeris recalls, "somebody yelled, 'Wouldn't you like to meet the U.S. team, Mr. President?' At that point Nixon did come over and shake our hands."

In the years that followed, despite continuing disagreements over Taiwan and U.S. disapproval of China's restrictive human rights policies, the two nations have maintained a mutually beneficial, if wary, relationship, based on growing trade. (Last year, China exported $102 billion worth of goods—everything from electronics to footware—to the United States.) Relations were strained one year ago, when a U.S. reconnaissance plane collided with a Chinese fighter jet and made an emergency landing on the Chinese island of Hainan. And in February, President Bush, in his second trip to China—30 years to the week after Nixon's visit—chided President Jiang Zemin. "Diversity is not disorder. Debate is not strife. And dissent is not revolution," the President said. Then, perhaps mindful of the Chinese proverb about a journey of a thousand miles beginning with a single step, he added: "Thirty years ago this week, President Richard Nixon showed the world that two vastly different governments could meet on the grounds of common interest and in a spirit of mutual respect."

David DeVoss observed the progress of Ping-Pong diplomacy from Vietnam, where he was a correspondent for Time *magazine.*

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LOST AT SEA

BY MICHAEL PARFIT

THE STORY OF ATLANTIC SALMON IS BOTH MURDER mystery and parable. It begins and ends in rivers.

Last September, late in the salmon season on Newfoundland's Humber River, lodge owner Sterling Pittman took me to a place called Big Falls, where dark water turns to foam on black rocks. We were looking for salmon, but there were none to be seen.

The Humber flows through a big, wild country of dense, low spruce forests and open marsh. Caribou drift by, and blueberries grow in the clearings. Once, near the Humber, I saw for the first and probably last time in my life a lynx, a skittish, ungainly creature so rare and wild it sometimes seems more mythical than real. This is the kind of place where salmon flourish.

At dusk, Sterling and I stood by the falls, waiting. "There," he said.

I didn't see anything.

"There." All I saw was a wall of white water, with a faint brown tea stain from the bogs upstream, tumbling down a four-foot cliff. Could there really be salmon here? Could it be that they left here two years ago seven inches long and now they weigh ten pounds? That they have returned here all the way from Greenland? That they can climb these falls like a ladder? Hard to believe.

PHOTOGRAPHS BY BILL CURTSINGER

Canadian biologist Pierre D'Amours surveys rivers (here the Restigouche in New Brunswick) to learn what is responsible for the dwindling population of Atlantic salmon.

"I think there are 62 official hypotheses. Everybody's looking for the magic bullet."

Then, in a split second, as fleeting as the shadow of a bird, the glittering fish leaped from the turmoil of water below the cliff and flew 5, 10, perhaps even 15 feet, doing the long jump before the high jump event of the falls. Then it disappeared. But that was enough. I believed.

"If there's any glamour fish, it has to be the Atlantic salmon," says Bill Taylor, president of the Atlantic Salmon Federation (ASF), a Canadian and American organization that is fighting to save the salmon from a variety of dangers, known and unknown, that have drastically reduced its numbers in many rivers and threaten it in others. "Like the bald eagle, these fish embody strength, beauty, perseverance."

Bill Taylor is a serious fly fisherman. When I talked with him, he was fishing New Brunswick's Miramichi River, where he stood surrounded by a blaze of autumn colors, casting a wet fly in graceful curls across pools called Hovey's and Dudley's and Home. In the way of most salmon fishermen these days, he was delighted, after all his casting, to report the hooking of a single fish, which he didn't land.

The Atlantic salmon is the king of sport fish, but no longer a monarch of the sea. It is bereft now of many of the places that used to be its home. There was a time when its domain reached as far south as the Connecticut River and all the way to Portugal. Once salmon were so abundant they were used as fertilizer. They ran thick in the Thames and the Rhine, and as far west as Lake Ontario.

Angler Mari Hill Harpur holds a 36-pounder caught by her grandfather in 1916.

The 20th century took care of that. Heavy commercial sea fishing, plus industrial development on the rivers, either used up or drove away the salmon, along with lots of other fish. Or polluted them out. Though some rivers—the Humber among them—still run with enough fish to draw sportfishers, the salmon that remain are at best a remnant of the great runs of the past.

And what has happened in recent years has been both devastating and baffling. In the 1970s and early '80s, conservationists thought the greatest threats to salmon were at last coming under control. In Canada, the government spent $45 million to buy out and shut down virtually the entire Atlantic salmon industry there. Rivers were being cleaned up, and, in some places, new fish ladders—essentially water staircases—were moving salmon around dams that had blocked them for years. Maine's Penobscot River, which had lost most of its salmon, saw a dramatic recovery in the late 1970s and early '80s. A biologist at Maine's Craig Brook hatchery remembers his colleagues celebrating as the numbers of returning salmon in the Penobscot rose from a few hundred to some 4,000 in 1987.

Then something unexpected happened. In the 1990s, the numbers of Atlantic salmon returning dropped precipitously everywhere. Over the past decade in Europe, there has been a 50 percent decline, and in the United States the numbers have dropped by two-thirds. The rivers of Maine and parts of New Brunswick and Nova Scotia have been particularly hard hit. Last year about 800 fish came back to the Penobscot, the highest number in the United States. Most of Maine's other rivers counted salmon only by tens, and the government recently classified the salmon of seven Maine rivers and a Penobscot tributary—which are genetically distinct from other Atlantic salmon—as officially endangered. Canada has labeled as endangered the runs of 33 rivers that flow into the inner Bay of Fundy.

The question is: What has happened, and what can be done about it? The answer: No one knows. But just about everyone who cares about this fish is trying to find out.

"I think there are 62 official hypotheses," says Ed Baum, author of *Maine Atlantic Salmon: A National Treasure*, and a biologist who has studied the fish over the course of a long career. "Everybody's looking for the magic bullet."

The multitude of explanations for what's going on has a great deal to do with the marvelous complexity of the Atlantic salmon's life cycle. Salmon spawn in the fall, in rivers, and the young hatch the following spring. As the fry grow, they are called parr, and for two or three years they resemble small trout. Then, one April or May, they turn silver and become known as smolts. (Out of 7,000 eggs,

The king of sport fish, Atlantic salmon (like this one on the Humber River) were once so abundant they were used as fertilizer.

only 3 to 5 make it to smoltdom.) They then head downstream, where they must adapt to saltwater. Rather than retaining salt, their kidneys now prepare to excrete it.

When the salmon reach the sea, they slip off the radar of most researchers. But tagging has established their general routes. Most Atlantic salmon—from both sides of the ocean—head for the waters off Greenland, where they spend one or more winters. They appear to cross the ocean—thousands of miles—guided by the earth's magnetic field and the positions of the sun, moon and stars. And once they near their home streams, they apparently smell the difference between, say, the Narraguagus or the Penobscot or the Miramichi through olfactory sensors on the lateral line down their sides.

Atlantic salmon return to their home rivers from June through October, but usually wait to spawn until late October into November. Unlike Pacific salmon, they don't die upon spawning. (One of the main differences between the Pacific and Atlantic species is that the latter can spawn multiple times.) Some head right back out to sea, while others hang out under the ice, giving up their silvery brightness in the somber light of winter. Salmon change colors to match where they live, so by the time they leave the rivers again in the spring, they are lean shadows of what they were, and people who fish for them call them black salmon. Returning to their home streams either one or two winters later, they are fat and bright again, and bigger. The largest Atlantic salmon—which can weigh more than 60 pounds—have been to sea and back several times. At every point in their odyssey, the fish are vulnerable to habitat change and predators, which is why there are so many theories to explain their decline.

The hypotheses begin with spawning, which can be disrupted by silt from road-building or logging, which can clog the gravel beds where salmon dig their nests. Dams and other obstacles may slow the passage of smolts to the sea and make it harder for adults to get home. Increasing numbers of predators, such as cormorants, may be taking more smolts than they used to, and chemical runoff from farms may damage fry and parr. Meanwhile, most of the southward-flowing rivers in Nova Scotia have been virtually ruined for salmon by acid rains caused by fossil-fuel emissions drifting east from the continent. And though water quality does not seem to be reducing the numbers of smolts heading for the sea elsewhere, no one knows what effect pollution may have on the fish once they leave.

That's critical, because at the moment, the sea is where the disaster appears to take place. Though enough smolts are leaving the rivers to provide respectable runs, the survival rate for salmon after they leave has dropped from about 10 percent 15 years ago to about 1 percent today.

"There's mass murder going on somewhere in the ocean," said Fred Whoriskey, chief scientist for the Atlantic Salmon Federation. "We don't know what it is or where it is. As scientific detectives, we have to look for clues to what the culprit is."

As he spoke, he was doing just that, working over an eight-pound salmon in a rock-and-concrete cave at the edge of a dam on New Brunswick's Magaguadavic River. A fish ladder led up through the cave, and in the middle there

To thwart poachers, some concerned citizens on Quebec's Saint-Jean have hired Pinkerton guards with net-sniffing dogs.

was a big steel cage in which all upriver-bound fish were temporarily caught.

Today the cage contained two salmon. But they were not, for Whoriskey's purposes, good ones. Their dorsal fins and tails looked deeply scuffed, evidence that they had spent their lives not in a river or at sea but in a salmon farm from which they'd escaped. These salmon, in fact, were among the many unindicted suspects in the disappearance of their wild cousins. "We let wild fish go on up the river," said Whoriskey, "but these fish will go to heaven." Though not before being bagged and sent on to a lab to be tested for disease.

The past decade's boom in Atlantic salmon aquaculture, which now produces about 650,000 tons of salmon for market from farms in Norway, Scotland and Ireland, was expected to lower the price of salmon to the point at which commercial fishing at sea would be uneconomical. It did—in fact salmon prices today are so low it's tough to

Conservationist Dwayne Shaw worries that salmon will disappear from Maine's Pleasant River, where they are now endangered.

Scientists (such as biologist John Anderson) debate whether hatcheries hold the key to the Atlantic salmon's future.

Gilles Lacroix hopes his tracking system for smolts, which uses underwater receivers, will help explain the salmons' fate at sea.

make a profit even from farming the fish—but the introduction of millions of caged salmon, with the inevitable escapees, has raised some concerns. For one thing, disease flourishes more readily in crowded aquaculture cages, and the mixing of domesticated stock with wild fish may weaken the wild stock.

So far, though, the evidence has proved inconclusive. A disease called infectious salmon anemia has caused losses among farmed fish, but it has not yet been found in a significant number of wild salmon. And though some New Brunswick rivers have had runs of escapees reaching over a thousand a year, no direct link has been found between their presence and wild salmon losses.

So the murder case continues unsolved. The ocean, after all, is a mysterious place, yet Whoriskey and his colleagues in detection are developing remarkable ways to snoop. Case in point: one morning I went out on the Bay of Fundy near the U.S.–Canada border with Gilles Lacroix, a biologist with Canada's Department of Fisheries and Oceans. Out in the bay, at half-mile intervals, buoys floated at anchor in waters up to 100 fathoms deep. At each one, the 24-foot twin outboard stopped, and Lacroix and his crew carefully winched a small PVC cylinder up from the depths.

Earlier in the year, Lacroix's staff had implanted transmitters, each about the size of a painkiller capsule, in some 200 wild salmon smolts. Each contained a battery that would last about four months, and each would emit a coded set of tiny beeps that would be received by recorders in the PVC cylinders. A web of receivers was stretched

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across the bay, a distance of about 45 miles. Now the winched cylinders were plugged into a laptop computer and data downloaded from them.

Lacroix was amazed at how well his experiment had worked. "You are looking for a fish this big," he said, holding his hands less than a foot apart, "and there are only 200 of them out there. And we're *finding* them."

Results from two years of research have already yielded significant information. Scientists had wondered whether the huge numbers of farmed fish in ocean pens might attract the smolts on their way past and either infect them with disease or delay them en route to the ocean. They didn't; nearly all the smolts headed directly for the open sea. Lacroix found some of the tagged fish dead in nets and others eaten, but generally their exodus was successful. "Eighty percent made it out," he said. "We were able to account for every fish we released."

Lacroix's research project is among the more advanced in this detective story. Similar electronic tracing is being done in some rivers, but elsewhere guesswork prevails. From Maine to Newfoundland, every theory about the decline of the salmon, and every possible solution to it, has its passionate advocates. Where you stand on these issues often depends on where you fish.

In Newfoundland, for instance, I heard a lot about seals. In the 1970s and '80s, campaigns by Greenpeace and other environmental groups stopped much of the traditional killing of seals for fur and meat. As a consequence, the numbers of harp seals—the most abundant seals in the Newfoundland region—have been growing by about 4 percent a year, reaching a population of at least 4.8 million. Fishermen believe these seals may be responsible for cod and salmon losses. "If you estimate that each seal eats about four and a half pounds of fish per day," says Ches Loughlin, editor of *Spawner*, a Newfoundland-based fly-fishing annual, "that's a lot of fish."

Marine mammal conservation groups dispute the seal hypothesis, maintaining that diet studies of seals almost never reveal salmon in their stomachs. Yet there have been reports from Maine of an increasing number of seal bites found on salmon. And a recent paper by Canadian scientists concluded that the seals' diet need contain only one salmon in thousands of meals to account for a 10 percent loss of young, seafaring salmon.

Other suspects in the salmon crisis include global warming, which could be stressing the fish with water too warm for their health or forcing their prey to different waters; trawlers that disrupt the sea bottom with nets they drag across it; and the decline of capelin, the small fish that salmon like to eat.

Finally, some fishermen believe that salmon poaching has a far greater impact than most people think, and that there are simply not enough law enforcement officials to stop it. "Individuals don't think they make a difference if they take one home," Bill Taylor told me. "But they do." In fact, one fisherman told me about a fish he had taken in a river where it is illegal to keep big salmon. "It was 48 pounds," he said, "and that was after it was cleaned."

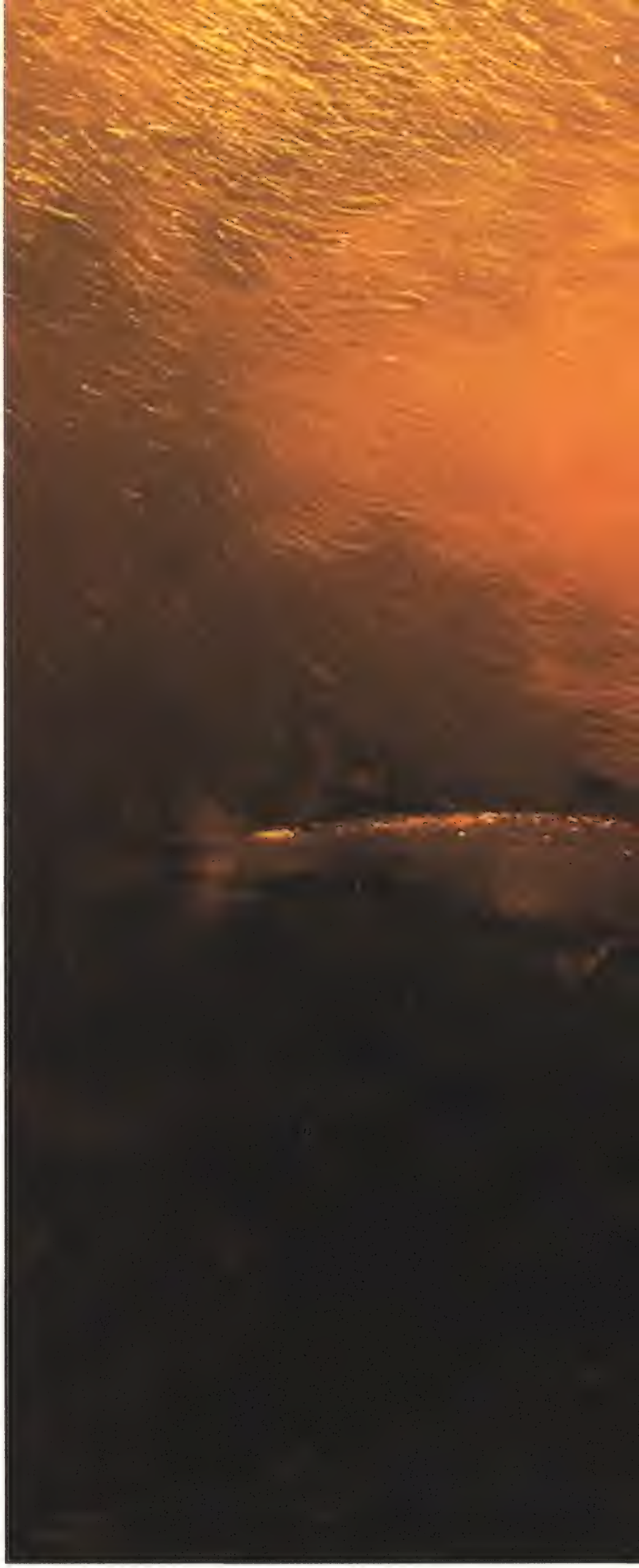
Then again, there may be no single explanation for what has happened—no identifiable villain and no convenient quick-fix solution. "The magic bullet everyone is looking for isn't there," Ed Baum told me. "The fish have been assaulted for 150 years. It's a cumulative problem. The main thing we need to do is reclaim the salmon's habitat, for all its life stages. There is still a lot of human impact on these runs. There's obviously something going on in the ocean. But if we can hold on to the habitat we have, then when the marine conditions change, the fish will come back."

Bill Taylor believes there are three short-term goals that would help save the fish. One is to continue researching the cause of their decline. A second involves buying out remaining commercial salmon fisheries, including Greenland's. The third would be restoring habitats—for instance, by removing river dams and building more fish ladders.

The cost for all this would be hundreds of millions of dollars. Are the salmon important enough to justify that kind of money? Many people—both taxpayers and contributors to organizations like ASF—are convinced that they are, perhaps because almost everything about the Atlantic salmon is so memorable to those who have fished for them, seen them or even imagined them.

I have two indelible memories of my own.

Researchers tag smolts (at Maine's Green Lake hatchery) to track their return to the same rivers in which they were spawned.



The mystery of the demise of the Atlantic salmon lies beneath the surface (here, a tributary of the Humber River). At this point in the murder case, researchers have few options beyond believing that better understanding of the salmon's life cycle will help save them.

One is of Bill Taylor. When he catches a salmon, he says, he holds it gently by the tail and runs his other hand up its belly until he can feel its heart beat strong and fast against his fingers. "You realize this fish has come all the way from Greenland," he says. "It almost makes you get a lump in your throat." He feels the life in his hands, completely under his control, to take or turn free—like all life that humans now touch in the world. Then he lets it go.

My second memory is of late in the season in Newfoundland. I went there with two scientists to a stream called Fischell's Brook. The summer had been dry, and the brook was very low, a narrow brown flow like a stain across a bed of stones. The men were there to survey the brook, and as we walked downstream we would snorkel through the places where it pooled and count the salmon.

Most of the pools were empty. In about four miles of river we counted 26 fish, 22 of them crowded in a single big pool. Then, near the stream's mouth, there was one more pool, just a flat spot in the brook beneath a big red rock on the channel side. I went in first, in water only three feet deep. It was a hazy cool place, faintly brown, with walls that seemed distant, though they were only 20 feet away, and a shimmering silver ceiling. Bits of moss from the bottom drifted lazily ahead of me, and a couple of parr about five inches long scooted off behind a stone.

At first it seemed they were alone. Then I saw it. In a little hollow by a boulder, a grown salmon lay almost still on the bottom. It was perhaps 22 inches long; not that big for a salmon. A fisherman would call it a grilse, a fish returning after only a single year at sea.

It hardly moved as I drifted past. We were both pretending to be logs. Its color was muted, and its sides soft with slime. There were two bright patches of silver on its back, each the size of an old silver dollar. I floated by, then turned to hold my place in the current. To me, living just for a moment with this fish was even better than having a salmon on a line. I lay there and watched. We do indeed have the fate of these fish in our control, but this was something different. This salmon had made it in spite of us. Despite seals, poachers, warming water, disappearing capelin—in spite of all a changing world had thrown at it—this miraculous fish had come home.

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Rising Sun

OPENING THIS MONTH ON ALEXANDRIA'S MEDITERRANEAN WATERFRONT, THE BIBLIOTHECA ALEXANDRINA REFLECTS THE SPIRIT OF ITS ANCIENT FOREBEAR

BY BRUCE WATSON

THE EGYPTIAN SUN CASTS FIERY diamonds on the deep blue of the Mediterranean Sea and silhouettes ancient minarets and modern apartment buildings alike in red. But it is on another sun—nearly 500 feet in diameter and made of glass and aluminum—that many have hung their hopes for a return to a former glory of Alexandria, Egypt's second largest city. After two decades of planning and construction, Bibliotheca Alexandrina now stands on Alexandria's waterfront just 130 feet from the sea. The library, meant to be an architectural signature like Australia's Sydney Opera House and Spain's Guggenheim Museum in Bilbao, opens to the public April 23.

Though it possesses far fewer books than

Ptolemy II (above), ruler of Egypt from 285 to 246 B.C., brought into being one of antiquity's greatest intellectual centers.

In testament to Alexandria's glory, an early 19th-century lithograph (top) casts the great library's ruins in a romantic light. In fact, scholars believe that virtually nothing of the library survived. The new library's outer walls (above) hold Aswan granite panels engraved with letters from the world's alphabets.

any other celebrated library—about 500,000 as compared with the 9.6 million books and other printed materials in the Library of Congress—it is drawing worldwide attention, both for its bold architecture and for its proximity to the site of the most famous library of the ancient world. More than 2,000 years ago, this Nile Delta city stood as a testimonial to the Ptolemies. This was the dynasty descended from Ptolemy I, one of Alexander the Great's generals who seized Egypt after Alexander's death in 323 B.C. It was Ptolemy I who made the fledgling city Alexander had founded in 332 B.C into a splendid capital. From its Gate of the Sun to its Gate of the Moon, temples and palaces lined its spacious streets. Marbled columns and glittering statues dazzled visitors. Alexandria witnessed not only the romance of Julius Caesar and Cleopatra but also the genius of the greatest mathematicians and astronomers of the time. Beckoning from its harbor was a towering lighthouse, perhaps 400 feet tall, one of the ancient world's seven wonders. And Alexandria boasted the world's first and greatest public library, a library whose aim was to contain a copy of every book ever written in Greek.

One day, or perhaps over centuries—no one knows for sure—the great library and its half million scrolls (the form in which books were written in Greek and Roman times) disappeared. Although the old library's fate is still mourned and debated, some discourage comparisons between old and new. "We are not reviving an ancient library," says Mohsen Zahran, Bibliotheca Alexandrina's former project manager and now its senior adviser. "We are reviving the idea of the pursuit of knowledge that thrived in the ancient library. The old library encouraged the public to debate, create and invent. The new library is carrying that legacy forward."

But will scholars come here now just because they once did? Can Egypt, a poor country by any standard, maintain a library worthy of one that housed the wisdom of ancient Greece? And, trickiest of all, can the bibliotheca succeed, given the geopolitical fissures in the region?

PP. 78, 79 ERIC BRISSAUD/GAMMA; P. 79 HULTON ARCHIVE/GETTY IMAGES

While the Nile flows northward, most tourists to Egypt flow in the opposite direction. From the Pyramids of Giza, near Cairo, visitors head south to the magnificent temples of Luxor and Abu Simbel. Alexandria sits to the north, a mere two-hour train ride from Cairo that carries passengers through the flat, lush Nile Delta—and backward in time. On the outskirts of villages, women in flowing black dresses ride donkeys past still palm trees. Turbaned men in tentlike robes called *galabias* sit discussing the affairs of the day over tiny cups of strong coffee, smoking tobacco from hip-high water pipes. Barefoot children scamper through unpaved streets. At one station stop, the mournful call of a *muzzein* summoning Muslims to prayer can be heard through an open window. For a few moments, life here seems unchanged by the centuries.

LIKE THE EGYPTIANS WHO FLOCK TO ITS BEACHES EACH SUMMER, MODERN Alexandria—a sprawling city of 3.3 million—seems too busy to dwell on its past. Cars, buses and taxis dare pedestrians to dodge them as they career through city streets. Shoppers stroll arm in arm past store windows filled with stereos and blue jeans. Only a few relics from antiquity remain: a Roman amphitheater, catacombs, a Greco-Roman museum housing statues and mosaics, and the so-called Pompey's Pillar, an 80-foot-tall column erected about A.D. 300 and today surrounded by high-rise apartments. Ruins, possibly including those of the palace of the Ptolemies, have recently been discovered just offshore, where they were inundated long ago by a rising sea level.

To see Alexandria's glory, you must close your eyes. As novelist E. M. Forster once observed, "the sights of Alexandria are in themselves not interesting, but they fascinate when we approach them through the past." Imagine, then, a great lighthouse across the bay, beckoning to ships far at sea. Picture Cleopatra riding in a gilded chariot through these streets. This is a city that was sculpted in marble and

Reigning over Egypt at the end of its golden age, Cleopatra has usually been portrayed as a captivating seductress, as in the engraving (above) after a painting by 19th-century French artist Jean-Léon Gérôme. Her lover, Julius Caesar (seated at desk), helped her gain the throne; she told him he was the father of her son, Ptolemy XV (a.k.a. Caesarion). After Caesar's murder in Rome, Cleopatra took up with the Roman general Mark Antony. They married, had three children together and committed suicide on the same day in 30 B.C.

PP. 80, 81 ART ARCHIVE; P. 80 CYRIL LE TOURNEUR D'ISON/GAMMA; P. 81 GRANGER COLLECTION

Designed by the Norwegian firm of Snøhetta, the 430,000-square-foot library boasts a soaring, ten-story-high glass-roofed reading room (top), as well as a planetarium, museums of science and archaeology and a conservation and restoration center. Here, a young woman works to preserve an ancient manuscript.

granite, a center of literature and learning back when Rome was but a mere town.

Legend has it that its location, a sheltered harbor mentioned in Homer's *Odyssey*, came to Alexander in a dream. Laying out its plans, his architects ran out of chalk and had to use barley meal. Birds came and ate the meal, a sign that seers took to mean that the world would come to this city. And the Mediterranean world, at least, did come. Under the Ptolemies, Alexandria attracted the intellectual elite of ancient times. It was here in the third century B.C. that Greek mathematician Euclid (325-265 B.C.) devised the geometry still studied in high school. Here astronomer Aristarchus (310-230 B.C.) measured the earth's tilt upon its axis and proposed that the earth orbits the sun. And here astronomer Eratosthenes (c. 276-194 B.C.) made an accurate estimate of the circumference of the earth. The first steam-powered device, the first map to use lines of latitude and longitude, the first research center, called the Place of the Muses—all were conceived here. Alexandria was rich in purse as well; the Ptolemies shipped grain from her port to the rest of the Greek world.

As early as 295 B.C., Ptolemy I, a historian, author and dabbler in mathematics as well as a general, dreamed of collecting the "books of all the peoples of the world" and wrote a letter to other rulers asking them to send him works by "poets and prose-writers, rhetoricians and sophists, doctors and soothsayers, historians." They did. Scrolls were stockpiled in warehouses, then cataloged and placed in a series of shelf-lined rooms in the palace. Any method of acquisition served. Books were simply confiscated from ships docking at the port. When Ptolemy asked his chief librarian how many had been collected, he replied, "More than two hundred thousand, O King; and I will soon make a diligent search for the remainder, so that a total of half a million may be reached." The catalog alone filled 120 scrolls. Ptolemy I died before his great library was completed, but his son carried on the work, and soon enough the shelves were filled. A smaller "daughter library" probably served general readers. Scholars went to town. They pro-

ERIC BRISSAUD/GAMMA; CYRIL LE TOURNEUR D'ISON/GAMMA

The sights of Alexandria, observed novelist E. M. Forster, only "fascinate when we approach them through the past."

duced standardized editions of all the Greek authors, especially Homer. Among other works, they also translated, for the first time, the Old Testament from Hebrew into Greek. Called the Septuagint, the translation was made, according to legend, by 72 Jewish scholars. Of course, then as now, the library had its critics. "In the populous land of Egypt," sneered a contemporary wit named Timon, "they breed a race of bookish scribblers who spend their whole lives pecking away in the cage of the Muses."

By 30 B.C. when Cleopatra, just 39, ended her reign and her life with the bite of an asp, Alexandria held as many people as scrolls—half a million—representing many races and creeds. "This city was a universal nurse, every race of men did settle in her," one ancient writer commented. But no amount of written wisdom could protect the city against the depredations of fortune. Over the next several centuries, Alexandria was torn by various struggles. Then, in A.D. 642, the city surrendered to new invaders: Arabs from the Middle East. "I have conquered the great city of the West and I find it difficult to list its riches and its beauties," Amr ibn al-As, leader of an Arab army under the banner of Islam, wrote to his ruler. "Let me say only that it contains 4,000 palaces, 4,000 public baths, 400 theaters or places of amusement, and 12,000 fruit shops." But the conquerors' encampment, near modern-day Cairo, became their capital; Alexandria went into decline. When Napoléon landed here in 1798 with an army to seize Egypt for France, an effort thwarted by the English, he found a fishing village of a mere 7,000 people. The city's great landmarks—the palaces, the lighthouse and the library—had long since succumbed to the ravages of time, earthquakes, fire and war.

Scholars not only studied in but, more importantly, cataloged manuscripts in the Alexandria library of more than two millennia ago, as depicted in this 19th-century engraving. Historians credit the library's first director, Zenodutus, with a system so fundamental that it still brings order to bibliographical chaos: arranging books alphabetically by the spelling of the authors' last names.

Through references in Greek and Latin sources, scholars know that, had the library survived, we would have 123 plays by Sophocles instead of just 7. We would have many historical works instead of just a few. Poetry, prose, philosophy, even cookbooks, all were lost. But how? And why?

Some historians blame Julius Caesar. In 48 B.C., Caesar arrived here in pursuit of his military rival Pompey, who sought refuge in the town. Charmed by Cleopatra, Caesar sided with her in a civil war against her brother, Ptolemy XIII. Responding to a sudden attack by Ptolemy's forces, Caesar ordered his soldiers to hurl flaming torches at enemy ships in the harbor. Fanned by Mediterranean breezes, the flames

GRANGER COLLECTION

Hard by the sea, the road known as the Corniche curves some ten miles along Alexandria's Eastern Harbor, an ancient waterfront now chockablock with apartment buildings and dotted with mosques and public beaches. Street vendors, residents and tourists favor this stretch of Egypt's second-largest city, beckoned by vivid sunsets, cafés and fresh seafood.

leaped from boats to buildings onshore, some of which were library warehouses.

Writing about a hundred years after the fire, the Roman philosopher Seneca noted that 40,000 scrolls perished in the flames. Later, the great Greek biographer Plutarch (c. A.D. 46-120) claimed the fire burned the library to the ground. Was it reduced to ashes or merely damaged? We simply don't know.

Some attribute its destruction to bitter fighting in A.D. 272, when Roman troops suppressed an uprising. Others refer to a conflict a century later, when most of Alexandria's temples were razed in a war on paganism waged by Christians. Some Western authorities say that Arabs, too, may have been responsible. Italian scholar Luciano Canfora cites a seventh-century letter from Alexandria's Muslim conqueror asking a caliph what to do with a half million scrolls. The caliph's answer: "As for the books you mention, if what is written in them agrees with the Book of God, they are not required; if it disagrees, they are not desired. Destroy them, therefore."

During the 19th century as seaborne trade increased in the Mediterranean, Egyptian ruler Muhammad Ali rebuilt Alexandria into a cosmopolitan city of a million people. Passing through in 1867, tourist Mark Twain found it "too much like a European city to be novel," and headed for the Pyramids. Between the world wars, a thriving expatriate European community, including authors such as Forster and Lawrence Durrell, found the city a sensual mix of East and West. "Alexandria was the great winepress of love," wrote Durrell in *Justine* (1957), the first novel of the *Alexandria Quartet*, his celebrated evocation of the bizarre and exotic life of the city in the 1930s and '40s. "Those who emerged from it were the sick men, the solitaries, the prophets—I mean all who have been deeply wounded in their sex."

While the rest of Egypt trafficked in its past, modern Alexandria has been more concerned with the pleasures of the present. Which may explain why, when President Richard Nixon, on a visit, asked to see the site of the library in 1974, locals were stumped. No one knew where it had stood. Like the body of Alexander himself, the library was said to be buried somewhere under these streets. Seven years later, perhaps inspired by Nixon's query and the subsequent searches through

M. TIMOTHY O'KEEFE

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"Those who emerged from [Alexandria] were the sick men . . ." wrote Durrell, "all who have been deeply wounded in their sex."

"Alexandria," wrote novelist Herman Melville in 1857, "seems Mcadamed [sic] with the ruins of a thousand cities. Every shovel full of earth dug over. The soil, deep loam, looks historical . . . Pompey's Pillar like a long stick of candy, well sucked." The modern visitor, admiring the harbor thronged with colorful fishing boats, might be more forgiving than Melville. Sweeping up from the waterfront is Alexandria's extravagant hope for the future: the Bibliotheca Alexandrina.

archives it prompted, UNESCO and Egyptian President Hosni Mubarak announced plans to revive the library of Alexandria.

Initially slated to be finished in 1995, the project has been plagued from the start by delays and funding problems. Egyptian scholars and journalists have complained that the building itself has taken precedence over its books, or lack of them. Controversy swirled around the choice of designers, the pace of construction, even the site. Some critics said that the location chosen for the project might disrupt buried ruins, perhaps even those of the old library—yet since no one is sure where the old library was, the construction continued.

Now, however, at last, seven fractious years after its groundbreaking, the building conceived by the Norwegian firm of Snøhetta—its design chosen over more than 500 others—is ready. On a blustery winter day, workers walk casually on the face of the huge disk, intended to pay homage to—as well as reflect—the sun, so central to life in this desert country. In the back, papyrus reeds, the material from which the old library's scrolls were made, grow in a reflecting pool.

In addition to its volumes, Bibliotheca Alexandrina will have 4,000 periodicals, 50,000 audiovisual materials, 50,000 rare books and as many maps. None will leave the building, but most will be accessible in the library's spectacular ten-story-high reading room, whose pillars soar to a sloping circular roof. The reading room will seat 2,500 people, some tapping away at computers linked to the Internet, others working as scholars in residence in their own glass-enclosed "cells" at the room's center. (The library also boasts a planetarium, museums of calligraphy, science and archaeology and a laboratory for restoring manuscripts.)

"Everyone knows it is a beautiful building," said one Egyptian businessman, "but they should ask what's inside it. What are the books?" In fact, the collection specializes in the history of Mediterranean cultures. Treasures include copies of rare

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"We make our buildings," Mohsen Zahran says, paraphrasing Winston Churchill, "and after, our buildings make us."

manuscripts from the Arab conquest of Spain, donated by the Spanish government; documents from the Suez Canal construction; and thousands of Arabic manuscripts culled from Egypt's other repositories. Yet the businessman's question contains a barb. The world's ships no longer dock in Alexandria, and Egypt is no longer as rich as it was when the Ptolemies paid a king's ransom for Aristotle's personal library. Library directors have funds to buy only about 50,000 books per year (they expect as many annually from donations). But at that rate, the library won't reach its capacity of eight million titles for 80 years. Even more problematic: Can the library be "a lighthouse of learning," as former project manager Zahran likes to boast, in Egypt's censorious climate?

Zahran, an MIT- and Princeton-educated urban planner, answers skeptical questions with a smile and a shrug. He is asked whether, in a country where nearly half the adults can't read, the project's $200 million might have been better spent on schools. "Creativity and culture are sound bases for development," he responds. "We make our buildings," he paraphrases Winston Churchill, "and after, our buildings make us."

Many agree. Arab governments chipped in more than $60 million. Germany, Japan and Norway sent equipment. Even young readers have pitched in. Several Greek schoolchildren sent $93, and one French boy mailed the ten francs his father had given him to buy a croissant.

"We must remember that the ancient library took hundreds of years to prove itself," Zahran says, smiling. "We can't expect Bibliotheca Alexandrina to acquire the same importance right away. That's why an eternal design, not one ancient or modern, was chosen. So long as the sun remains circular, the library will be in fashion."

Frequent contributor Bruce Watson wrote in February about the Palmer Raids.

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ELIZABETH WOLF

TOUR BEGINS

Alexandria resident and author Lawrence Durrell found mystery and romance in the city he called "the great winepress of love." Care to sample the grape?

THOUGH ONCE THE center of the classical world, Alexandria is no longer on the main tourist trail. A small international airport hosts a few flights from Europe but none from the United States. Instead, proceed directly to Cairo, where trains leave every few hours from Ramses Station, or take the bus, which passes the Pyramids.

"THE SEA IS HIGH today with a thrilling flush of wind," wrote Durrell in his *Alexandria Quartet*. Mediterranean breezes keep even July temperatures in the 80s, attracting huge summertime crowds. You'll find the beaches and streets less crowded between November and March when daytime temperatures are in the high 50s.

ARE THERE RISKS? Not since 1997 have terrorists targeted tourists in Egypt, and due to stepped-up security, the rates of crime and violence are low.

INSIDE TIP: Save time for the slightly run-down but artifact-filled Greco-Roman museum downtown (011-203-482-5820). The glory that was Alexandria can be found in the museum's dozens of objects from the Ptolemaic era: sarcophagi, coins, mosaics, sculptures and friezes.

CHOICE COLLECTIBLE: Save your money for Cairo's bazaars. Alexandria's take-home collectibles are its memories. So descend three stories to tour the catacombs of Kom al-Shuqafa and greet the cats that call these Roman tombs home.

YOU SHOULD KNOW: Cairo has plenty of ATMs and money-changing agencies, but Alexandria does not, so bring cash and credit cards. And carry plenty of Egyptian one-pound notes for tips.

FOR THE GOURMAND: One glance at the deep blue sea suggests the cuisine for which Alexandria is known. The best local seafood is served at the Al-Saraya, an elegant restaurant on the east end overlooking the sweeping coastline. Try the shrimp bisque, and sit near a window where you can hear the waves crashing, just as Caesar and Napoléon heard them.—B.W.

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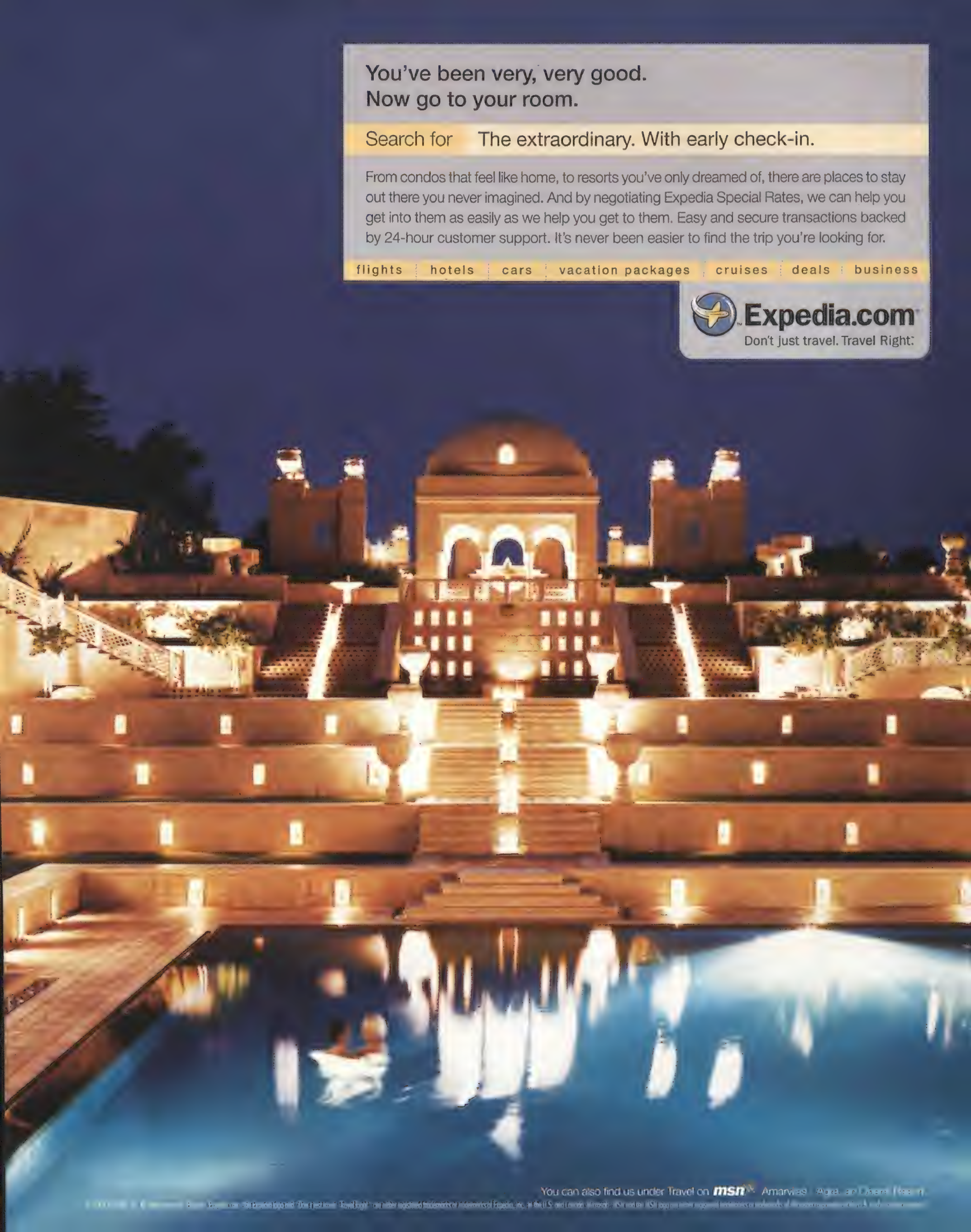

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For people with type 2 diabetes

"By taking care of my diabetes, I take care of my family."

"I've made the commitment for myself, but it's also for my family. For my wife and my two beautiful daughters – they're everything to me. All I have to do is look at them, any one of them, and I find all the strength, all the reason, all the determination I need to take better care of myself.

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Avandia, along with diet and exercise, helps improve blood sugar control. It may be prescribed alone, with Glucophage® (metformin HCl tablets) or with sulfonylureas. When taking *Avandia* with a sulfonylurea, you may be at risk for low blood sugar. Ask your doctor whether you need to lower your sulfonylurea dosage.

Some people may experience tiredness, weight gain or swelling with *Avandia*.

Avandia in combination with insulin may increase the risk of serious heart problems. Because of this, talk to your doctor before using *Avandia* and insulin together. *Avandia* may cause fluid retention, or swelling, which could lead to or worsen heart failure, so tell your doctor if you have a history of these conditions. If you experience an unusually rapid increase in weight, swelling or shortness of breath while taking *Avandia*, talk to your doctor immediately. *Avandia* is not for everyone. If you have severe heart failure or active liver disease, *Avandia* is not recommended.

Also, blood tests to check for serious liver problems should be conducted before and during *Avandia* therapy. Tell your doctor if you have liver disease, or if you experience unexplained tiredness, stomach problems, dark urine or yellowing of the skin while taking *Avandia*. See important patient information on the following page.

Talk to your doctor, or for more information call 1-800-AVANDIA (1-800-282-6342) or visit www.avandia.com

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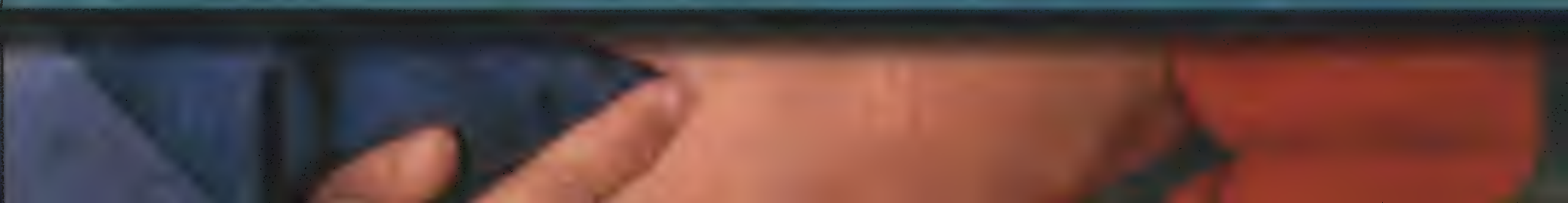

Patient Information about AVANDIA® (rosiglitazone maleate) 2 mg, 4 mg, and 8 mg Tablets

What is *Avandia*?
Avandia is one product in a class of prescription drugs called thiazolidinediones (thigh-a-zol-a-deen-die-owns) or TZDs. It is used to treat type 2 diabetes by helping the body use the insulin that it is already making. *Avandia* comes as pills that can be taken either once a day or twice a day to help improve blood sugar levels.

How does *Avandia* treat type 2 diabetes?
If you have type 2 diabetes, your body probably still produces insulin but it is not able to use the insulin efficiently. Insulin is needed to allow sugar to be carried from the bloodstream into many cells of the body for energy. If insulin is not being used correctly, sugar does not enter the cells very well and builds up in the blood. If not controlled, the high blood sugar level can lead to serious medical problems, including kidney damage, blindness and amputation.

Avandia helps your body use insulin by making the cells more sensitive to insulin so that the sugar can enter the cell.

How quickly will *Avandia* begin to work?
Avandia begins to reduce blood sugar levels within 2 weeks. However, since *Avandia* works to address an important underlying cause of type 2 diabetes, insulin resistance, it may take 8 to 12 weeks to see the full effect. If you do not respond adequately to your starting dose of *Avandia*, your physician may increase your daily dose to improve your blood sugar control.

How should I take *Avandia*?
Your doctor may tell you to take *Avandia* once a day or twice a day (in the morning and evening). It can be taken with or without meals. Food does not affect how *Avandia* works. To help you remember to take *Avandia*, you may want to take it at the same time every day.

What if I miss a dose?
<u>If your doctor has prescribed *Avandia* for use once a day:</u>

- As soon as you remember your missed dose, take one tablet anytime during the day.
- If you forget and go a whole day without taking a dose, don't try to make it up by adding another dose on the following day. Forget about the missed dose and simply follow your normal schedule.

<u>If your doctor has prescribed *Avandia* for use twice a day:</u>

- As soon as you remember the missed dose, take one tablet.
- Take the next dose at the normal time on the same day.
- Don't try to make up a missed dose from the day before.
- You should never take three doses on any single day in order to make up for a missed dose the day before.

Do I need to test my blood for sugar while using *Avandia*?
Yes, you should follow your doctor's instructions about your at-home testing schedule.

Does *Avandia* cure type 2 diabetes?
Currently there is no cure for diabetes. The only way to avoid the effects of the disease is to maintain good blood sugar control by following your doctor's advice for diet, exercise, weight control, and medication. *Avandia*, alone or in combination with other antidiabetic drugs (i.e., sulfonylureas or metformin), may improve these other efforts by helping your body make better use of the insulin it already produces.

Can I take *Avandia* with other medications?
Avandia has been taken safely by people using other medications, including other antidiabetic medications, birth control pills, warfarin (a blood thinner), Zantac® (ranitidine, an antiulcer product from GlaxoSmithKline), certain heart medications, and some cholesterol-lowering products. You should discuss with your doctor the most appropriate plan for you. If you are taking prescription or over-the-counter products for your diabetes or for conditions other than diabetes, be sure to tell your doctor. Sometimes a patient who is taking two antidiabetic medications each day can become irritable, lightheaded or excessively tired. Tell your doctor if this occurs; your blood sugar levels may be dropping too low, and the dose of your medication may need to be reduced.

What should I discuss with my doctor before taking *Avandia*?
Avandia in combination with insulin may increase the risk of serious heart problems. Because of this, talk to your doctor before using *Avandia* and insulin together. *Avandia* may cause fluid retention or swelling which could lead to or worsen heart failure, so tell your doctor if you have a history of these conditions. You should also talk to your doctor if you have liver problems, or if you are nursing, pregnant or thinking of becoming pregnant. If you are a premenopausal woman who is not ovulating, you should know that *Avandia* therapy may result in the resumption of ovulation, which may increase your chances of becoming pregnant. Therefore, you may need to consider birth control options.

What are the possible side effects of *Avandia*?
Avandia was generally well tolerated in clinical trials. The most common side effects reported by people taking *Avandia* were upper respiratory infection (cold-like symptoms) and headache. As with most other diabetes medications, you may experience an increase in weight. You may also experience edema (swelling) and/or anemia (tiredness). If you experience any swelling of your extremities (e.g., legs, ankles) or tiredness, notify your doctor. Talk to your doctor immediately if you experience edema, shortness of breath, an unusually rapid increase in weight, or other symptoms of heart failure.

Who should not use *Avandia*?
You should not take *Avandia* if you are in the later stages of heart failure or if you have active liver disease. The following people should also not take *Avandia*: People with type 1 diabetes, people who experienced yellowing of the skin with Rezulin® (troglitazone, Parke-Davis), people who are allergic to *Avandia* or any of its components and people with diabetic ketoacidosis.

Why are laboratory tests recommended?
Your doctor may conduct blood tests to measure your blood sugar control. Blood tests to check for serious liver problems should be conducted before starting *Avandia*, every 2 months during the first year, and periodically thereafter.

It is important that you call your doctor immediately if you experience unexplained symptoms of nausea, vomiting, stomach pain, tiredness, anorexia, dark urine, or yellowing of the skin.

How should I store *Avandia*?
Avandia should be stored at room temperature in a child-proof container out of the reach of children. Store *Avandia* in its original container.

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MULTIPLE VIEWPOINTS

PHOTOGRAPHER EDWARD BURTYNSKY'S POLITICALLY CHARGED INDUSTRIAL LANDSCAPES ARE CAREFULLY CRAFTED TO ELICIT DIFFERENT INTERPRETATIONS

BY SEAN CALLAHAN

The carcass of a cargo ship, already sheared of its forward structure, sits where it was parked on the beach at Chittagong, Bangladesh, flanked by two other scrapped vessels in various states of dismemberment.

The interior wall of a newly dissected cargo liner brings to light subtle colors from years of rust and simple toil.

AS A PHOTOGRAPHY STUDENT AT Toronto's Ryerson University in the late 1970s, Edward Burtynsky was struck by the scale of the city's skyscrapers and the powerful visual statements they made. Intending to pursue landscape photography, Burtynsky asked himself where in nature he might find places that had the same graphic power as these great structures. Thus began a career in pursuit of landscapes that also reflect the hand of man.

In contrast to the pristine views of landscapes found in national parks and distant preserves (exemplified by Ansel Adams and his photographic heirs), Burtynsky's work is more immediate—grittier. "The industrial landscape speaks to our times," he says. Which is why the 47-year-old Canadian's approach both seduces and repels. "I see my work as being open to multiple readings," he says. "One can look at these images as making political statements about the environment, but they also celebrate the achievements of engineering or the wonders of geology."

For example, his recent shipbreaking series from Bangladesh (where retired ocean vessels are run up on the beach at high tide and then furiously dismantled by workers in about three months) documents a process that leaves oil and toxic wastes on otherwise unspoiled beaches. Still, Burtynsky points out, the recycled metal is the country's sole source of iron, steel and brass. "I'm not using my art to browbeat corporations for the rack and ruin of our landscape," he says. "I'm trying to extract a slice out of that chaos and give it a visual coherence so that the viewer can decide."

Working as he does with large format cameras and their attendant paraphernalia puts special demands on the photographer. "My ticket to Bangladesh cost less than my overweight baggage fees," he notes wryly. Setting up a picture can take hours. "Sometimes you can move ten steps forward, or ten steps back, and the image just isn't there," he says. "But at some point it clicks in your mind."

Nor is the photographer's work done once the shutter is squeezed. "The ultimate experience for the viewer is an original print," he says, "thus I feel I need to pay strict attention to the printmaking." His fine-grain 50- by 60-inch photographs allow viewers to discover mundane artifacts, like a discarded stonemason's tool or the kaleidoscope of labels and logos from cans compressed in a crusher.

Burtynsky sometimes uses telephoto lenses to compress the foreground and get the viewer to the heart of the matter. "It's in this middle ground that you experience the sweep of the landscape," he says.

Using mostly hand tools and cutting torches, Bangladeshi laborers swarm over huge vessels and reduce them, in a matter of months, to salvageable chunks to be hauled away in small trucks. Burtynsky's view camera brings scale and formality to a chaotic process.

A hatch lid has been removed and lies waiting for pick up against a bulk cargo bay wall. Typically, Burtynsky uses color sparingly.

Millions of tires came to rest in this Westley, California, recycling facility before it caught fire in 1999.

A five-minute exposure was required to produce the muted tones that heighten this already surreal "face," created by the strange juxtaposition of ship sections. Burtynsky spent five weeks in 2000 and 2001 photographing ships being salvaged in Bangladesh.

ALL: EDWARD BURTYNSKY/CHARLES COWLES GALLERY, NEW YORK

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"Recycling is a secondary form of mining," says Burtynsky. He came upon the crushed oil drums in Ontario in 1997.

"THESE IMAGES MAKE POLITICAL STATEMENTS, BUT THEY ALSO CELEBRATE THE ACHIEVEMENTS OF ENGINEERING OR THE WONDERS OF GEOLOGY."

Burtynsky began photographing quarries, such as this one in Barre, Vermont, in a quest to find the equivalent in nature to the monumental skyscrapers that captivated him as a student in Toronto. A granite quarry, one of the oldest in the United States, it is now underwater.

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BUILDING TO A DIFFERENT DRUMMER

TODAY'S TIMBER FRAME REVIVALISTS ARE PUTTING UP EVERYTHING FROM MILLIONAIRE MANSIONS TO A REPLICA OF THOREAU'S CABIN

BY DAVID SIMS

PHOTOGRAPHS BY ENRICO FERORELLI

Joinery techniques in even the largest modern structures are similar to those used by Henry David Thoreau (above) to build his simple cabin.

Just when I'm getting into a 19th-century frame of mind, a chain saw screams to life and fells a tree.

DRESSED IN A CANVAS KILT WITH silver-button snap pockets and a hatchet dangling from a hammer loop, Ben Brungraber looks like what Henry David Thoreau might have had in mind when he wrote of a man marching to the beat of a different drummer. We're in Walden Woods near Concord, Massachusetts. Brungraber, 50, who has a PhD in civil engineering and has been nicknamed Dr. Joint for his work on the strength of traditional wooden joinery, is hewing bark off a pine log, replicating what Thoreau did some 150 years ago when he built a timber frame cabin on the shores of Walden Pond. For the first time since 1849—when the cabin was moved to a farm and the roof later used to cover a pigsty—the woods will boast a structure like the one described in *Walden*.

Brungraber is the senior engineer and resident eccentric at Bensonwood, a company employing high-tech practitioners of timber framing, an age-old technique of building with heavy timbers—beams and posts and braces—fastened together with precisely cut, interlocking joints and big wooden pegs. He's here with 35 other volunteers for two weekends to create a replica of the writer's 10' x 15' cabin for the Thoreau Institute at Walden Woods. While some of the workers use Thoreau-era tools, no one is dressed in period clothing. Brungraber wears a kilt, he says, because "it amuses the hell out of me." He has been amusing his Bensonwood cohorts for 15 years while helping Tedd Benson, 53, spur renewed interest in timber framing as Benson himself went from struggling craftsman to president of the $8 million timber frame construction business that bears his name.

IN THOREAU'S DAY, SUPPORTING TIMbers were usually covered with some sort of "wall" in the same way that 2 x 4s used in stud or "stick" framing get hidden under drywall today. But in the living areas of a modern timber frame house, timbers—weighing up to a ton—are generally left exposed. The aesthetics of the bright, open spaces of these structures, a stark contrast to the humdrum, boxy look of many conventionally framed houses, have driven the timber frame renaissance.

The kilted Ben Brungraber, a stress-load expert, is the team's designated eccentric.

By definition, a timber frame structure relies on mortise (the hollowed out part) and tenon (the protruding part) joinery to connect the pieces. Raising a timber frame resembles snapping together a humongous construction toy: insert Tenon A into Mortise B; drive in Peg C. Secured in place with hardwood pegs and slatlike splines, a well-constructed timber frame can stand for hundreds of years.

Traditionally, the techniques of timber framing were passed down through a master-apprentice system. Today's American framers acquire their skills in a variety of settings. The Timber Framers Guild, cofounded by Benson in 1984 and today boasting 1,700 members, offers workshops and on-the-job training, building such structures as a covered bridge in Ontario, Canada, a shelter for battered women in Virginia or a barn for a community of adults with mental illness in Massachusetts.

For the Thoreau cabin project, Bensonwood volunteers have roamed the woods near Walden Pond felling trees that will work not only as corner posts, wall beams, rafters and floor joists, but will also require the least amount of paring. They chop diagonally, then vertically, through bark and softwood to remove large wedges of wood. Then, using a hoelike adze, a wide flat-headed broadax or a double-handled drawknife, they make flat, squared surfaces into which precise joints can be cut. A 20-foot-tall pine trunk, eight inches in diameter, becomes a straight, four-sided 6" x 6" x 15' beam that will span the length of the cabin.

The forest floor is strewn with bark and wood shavings, including scraps from wood I've started to chisel. The soft pine is green and easy to work, but I've never done this before and I worry that one careless whack will ruin a whole timber. The muted thud of axes fills the air as the pine flesh is hacked away; just when I'm getting into a 19th-century frame of mind, a chain saw screams to life and fells a tree for a floor joist, replacing one that got too close a shave from an adze. "Sorry, Henry," Benson says with a big, toothy grin to the spirit of Thoreau. Authenticity is important, but time is running out and no one's getting all hung up about purity when it comes to chopping down a tree or two.

Benson and Thoreau make an odd couple. Bensonwood is known mainly for its expansive, high-end timber frame homes—"shelters for the second homeless"—as some wag put it. At the Bensonwood shop, in Walpole, New Hampshire, a massive $400,000 German-made, automated timber-cutting tool dubbed "Das Machine" could have cut all the joinery for Thoreau's cabin in minutes with strokes of a few com-

P. 101 AND P. 103 TOP LEFT: GRANGER COLLECTION (2)

"I lived alone, in the woods, a mile from any neighbor, in a house which I had built myself," wrote Thoreau of his Walden sojourn.

Thoreau felled, hewed, mortised and tenoned timbers alone. The volunteers replicated his efforts, but not his solitude.

For high-tech timber framer Tedd Benson, "it was really wonderful to do all of the work on the cabin in the woods, going from tree to finished piece. It brought us all back to the roots of our craft."

Ray Zabel (above) uses a drawknife to strip bark. Thoreau hewed many timbers on one or two sides only, so Benson and Ben VanOot (above, right) attach a brace with much of the bark remaining.

Some contented homeowners call their timber frame houses "structural sculpture" because of the highly polished exposed wood.

JAMES R. SALOMON

puter keys. But Benson was a '60s idealist before he was a successful businessman, and, he says, "I definitely feel connected to this project."

Certainly this replica will be more authentic than the 2 x 4 stick frame cabin currently located across the road from Walden Pond. It was one of several built over the years by a tireless Thoreau researcher, archaeologist and entrepreneur named Roland Robbins. He even marketed a build-your-own-Thoreau-cabin kit.

Thoreau writes in *Walden* how in March of 1845 he felled "some tall, arrowy white pines, still in their youth, for timber," hewed them to size and shape and cut mortise and tenon joinery. As every schoolkid knows—or should—Thoreau gave up the comforts of Concord and moved to the woods, "because I wished to live deliberately, to front only the essential facts of life, and see if I could not learn what it had to teach, and not, when I came to die, discover that I had not lived." Thoreau was 27 years old when he built his cabin. He stayed in it, with frequent forays into town, for two years, two months and two days.

Benson was 26 when he began to shift from conventional stud-frame building to timber framing in 1974. Growing up in Colorado Springs, Colorado, he worked on construction jobs during high school and college summers. In 1970, he and his wife, Christine, moved to Boston to finish college. To pay the bills, he did carpentry work and encountered a wholly different style of construction—one he'd never seen in the West.

In 1971 he acquired an old timber frame barn in New Hampshire to tear down and salvage the wood for a workshop. But the barn had other plans. Benson used chain saws, four-wheel drive pickups and a wrecker truck to pull the supports out from beneath the structure, but the three-story barn held its ground. Finally, Benson had to bring the thing down like an old bull elephant, pulling it over on its side and dismantling the bones one at a time. The experience hooked him on timber framing, and he dropped his academic ambitions.

Benson used chain saws, pickups and a wrecker truck, but the three-story barn held its ground.

The barns raised by dedicated timber framers are built to last—for centuries.

MORTISE AND TENON JOINTS HAVE BEEN found in 3,000-year-old Egyptian furniture and in ancient Chinese buildings. Japan's Golden Hall, part of the great Buddhist temple Horyu-ji near Nara, which was rebuilt around the end of the seventh century using timber framing techniques, is the world's oldest surviving wooden structure. In northern Europe, a form of timber framing recognizable today can be traced to the third century A.D. By the tenth century, cathedrals with complex timber frame roof systems were going up across the Continent. Immigrants brought timber framing methods to the New World, where they were passed down from generation to generation.

But in the mid-1800s, timber framing in the United States began to wane. Westward expansion mandated faster, cheaper techniques. High-production sawmills made standardized lumber widely available for the first time, and railroads transported huge loads of it near and far. After Chicago's Great Fire, in 1871, left much of the city a smoking ruin, 2 x 4s came to the rescue, providing quick, cheap replacement housing. From then on, American timber framing was an endangered form.

Today, after a century of neglect, timber framing in America is practiced by a growing group of craftsmen, ranging from those on technology's edge, like Benson, to uncompromising purists like Jack Sobon. For 20 years Sobon, who trained as an architect, has used only hand tools—augers, adzes, axes, chisels—in his timber frame projects. "I wanted to unlock the secrets of the past," he says, "and power tools don't bring you closer to the wood." Last year Sobon, 46, let his two-man timber frame crew go, and he now hauls logs out of his own 73-acre Windsor, Massachusetts, forest using oxen.

While Benson's Web site is state of the art, Sobon doesn't even have e-mail. Bensonwood frames look like symmetrically precise, polished pieces of elegant furniture. Sobon's give the impression of a forest having been rearranged into a house. (His specialty is the medieval cruck frame—naturally curved timbers that form an arch.) Benson's frames belong in an art gallery; Sobon's in a museum of anthropology.

These days, Benson is focused less on timber framing per se and more on integrating the ancient craft into a whole system of housing construction. "Timber frame building systems are inherently different and give us the opportunity to think in new ways," he insists. In Benson's vision of the future, houses will be assembled and disassembled in a snap—wood, walls, wiring, the works. There will be less waste, greater choice and better quality, he says.

Traditional timber framer and purist Jack Sobon transformed trees on one client's property into a cruck frame addition (left). He prepares his timbers using hand tools only.

BACK AT WALDEN POND, BENSON AND crew emerge from the woods with a load of timbers that look like they fell off a horse-drawn wagon. The timbers are rough but also true and square. The simple mortise and tenon joinery looks beautiful. The hard hewing work done, the cabin is raised quickly. After interlocking and pegging some 55 beams and posts together, ten framers heave up a wall section. It makes a sound like a ship's timbers creaking in a rolling sea. When the last rafters are raised and the timbers connected, hoots, hollers and shouts of "Hey, Henry!" go up. As tradition mandates, a bough from an evergreen is nailed to the peak above the door in thanks for a safe raising. Like Thoreau, who used pine boards from a nearby shanty to enclose his cabin, the volunteers nail boards—with old-fashioned cut nails—onto the replica's frame. Later, the Thoreau Institute will have a horse hair plasterer, expert in the methods of Thoreau's day, finish the cabin's walls, leaving one section exposed to reveal its structure. The institute is planning to officially open the cabin in the fall.

I step inside and look with pride at the corner brace I helped hew, and I look up at the ceiling joists hewn on four sides to match a piece of wood that is now part of a Thoreau collection at the Concord Free Public Library. Benson believes the wood came from the philosopher's actual cabin.

As it happened, I visited the library with Benson when he examined the worm-eaten chunk, turning it this way and that and scattering slivers of dry rot over the library table. I eyed them furtively, persuading myself that they'd end up in the custodian's vacuum cleaner if I didn't appropriate them. So I did. My idea was to give these precious bits of Americana to my children for them to pass down through the generations. It was a noble plan. But by day's end, all that was left was dust at the bottom of a pocket. I realized the only keepsake I'll be handing down are the pants themselves—with a warning label attached: "Do not wash! The powder in the front right pocket is from Henry David Thoreau's 1845 Walden Cabin."

Freelancer David Sims writes from his home in Durham, New Hampshire. Photographer Enrico Ferorelli is based in New York City.

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Absence of Malice

IN A NEW BOOK, HISTORIAN RONALD C. WHITE, JR., EXPLAINS WHY LINCOLN'S SECOND INAUGURAL ADDRESS, GIVEN JUST WEEKS BEFORE HE DIED, WAS HIS GREATEST SPEECH

"For too long," says Ronald C. White, Jr., "Lincoln's Second Inaugural Address has lived under the shadow of the Gettysburg Address. And yet Lincoln thought this was his best effort." White does too. In his new book, Lincoln's Greatest Speech: The Second Inaugural, *excerpted here, the professor of American religious history at San Francisco Theological Seminary sees the speech as key to understanding Lincoln's greatness.*

White's fascination with the 16th President was sparked at a 1993 seminar. "He was the average American, with only one year of education, a man who was really quite ugly in a certain sense—could he ever have campaigned today?—tall, awkward, gawky, clothes ill-fitting, with a tenor voice, almost a falsetto, and yet he was a huge man for his day, 6 feet 4 inches tall. Everything about him was against his being a powerful speaker. But once he began to speak, what people sensed was his integrity. He was not playing a role. And the audience of that day picked it up." More than 130 years after Lincoln's assassination, that quality still moves people powerfully. "He had the knack of asking these simple but very profound questions. In every crisis, whether it's September 11 or World War II, it is amazing how people return to Lincoln."

By March 1865 (until 1937, Presidents were generally inaugurated in March), America had been flayed by four years of a war that had lasted longer than anyone thought it would, but whose end, at last, seemed in sight. Not since Andrew Jackson, 32 years before, had any President been elected for a second term, and, says White, "there had been no expectation of it. There had been a series of one-term Presidents with not much to commend them." Nor did those gathered to hear Lin-

The medium was in its infancy when Scottish photographer Alexander Gardner captured Lincoln (behind white table, on the Capitol's East Portico) giving his Second Inaugural.

Adapted from *Lincoln's Greatest Speech: The Second Inaugural*, © 2002 by Ronald C. White, Jr.
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coln that rainy day—fans and detractors, newspaper reporters, Confederate deserters, black troops, plainclothes detectives fearful that Lincoln was going to be abducted—expect the 703-word speech the President delivered. What they heard was neither a recitation of achievement nor a statement of policy, but a sermon in which, White says, "Lincoln would ask his audience to think with him about the cause and meaning of the war."

In the six-minute address, Lincoln used repetition and alliteration to give his sentences a cadence White likens to poetry. Five hundred of the words are of a single syllable, "but that doesn't mean it's simple." An understated sentence such as "And the war came," says White, lifts the conflict from human event to something with a life of its own "independent of Presidents, generals and soldiers."

Now inscribed on the limestone walls of the Lincoln Memorial, the Second Inaugural Address can be understood, White believes, as a "culmination of Lincoln's own struggle over the meaning of America, the meaning of the war, and his own struggle with slavery."

And, he adds, as a blueprint for tolerance. "Lincoln hoped that this speech was laying the groundwork for a reconstruction of compassion and reconciliation."

PRESIDENT ABRAHAM LINCOLN HAD every reason to be hopeful as inauguration day, March 4, 1865, approached. The Confederacy was splintered, if not shattered. On February 1, Union General William Tecumseh Sherman led sixty thousand troops out of Savannah. Slashing through South Carolina, they wreaked havoc in the state that had been the seedbed of secession. To celebrate victories in Columbia and Charleston, South Carolina, and Wilmington, North Carolina, Lincoln ordered a nighttime illumination in Washington. Crowds celebrated these achievements in song as the harbinger of the end of the hostilities.

At the same time, Union General Ulysses S. Grant was besieging Petersburg, Virginia, twenty miles south of Richmond. Despite Confederate General Robert E. Lee's previous record for forestalling defeat, it was clear that the badly outnumbered Confederates could not hold out much longer. Everything pointed toward victory.

Apprehension intruded upon this hopeful spirit. Rumors were flying about the capital that desperate Confederates, now realizing that defeat was imminent, would attempt to abduct or assassinate the president. Secretary of War Edwin M. Stanton took extraordinary precautions. All roads leading to Washington had been heavily picketed for some days and the bridges patrolled with "extra vigilance." The 8th Illinois Cavalry was sent out from Fairfax Court House with orders to look for "suspicious characters." The problem was greatly complicated by the presence of large numbers of Confederate deserters who now roamed the capital. Stanton posted sharpshooters on the buildings that would ring the inaugural ceremonies. Plainclothes detectives roved the city keeping track of questionable persons.

After four years as a war president, Lincoln could look ahead to four years as a peace president. With no Congress in session until December to hamper him, he would have free rein to do some peacemaking on his own. Gamblers were even betting that the sixteenth president would be inaugurated for a third term in 1869. The president, who had been battered by critics in Congress and the press for much of the war, was finally beginning to receive credit for his leadership. Many were suggesting that the stakes were about to get higher. Would Lincoln, the resourceful commander-in-chief, guide a reunited nation during what was beginning to be called "Reconstruction"?

As the day for his second inauguration drew near, everyone wondered what the president would say. No one

seemed to know anything about the content of Lincoln's speech. A dispatch from the Associated Press reported that the address would be "brief—not exceeding, probably, a column in length." It was recalled that he took thirty-five minutes to deliver his First Inaugural Address. The *New York Herald* reported that "the address will probably be the briefest one ever delivered." Another report said the address would take only five to eight minutes.

If reports about the length of the address were correct, how would Lincoln deal with questions that were multiplying? Would he use his rhetorical skills to take the hide off his opponents in the South and North? Was the Confederate States of America to be treated as a con-

Construction of the Capitol's iron dome (here, c. 1867) was halted in 1861. Resumed at Lincoln's insistence despite the war, it came to symbolize the perpetuation of the Union.

quered nation? How did one demarcate between the innocent and the guilty, between citizens and soldiers? What would Lincoln say about the slaves? They had been emancipated but what about suffrage?

All of these questions involved complex constitutional issues. Lincoln had used a good portion of his First Inaugural to argue carefully and logically his understanding of the indissoluble Union in light of the Constitution. The *New York World*, a New York City newspaper that had been a thorn in his side all through the war, contended that the Second Inaugural Address "ought to be the most significant and reassuring of all his public utterances."

Just beneath the outward merry-making lay a different emotion. A weariness of spirit pervaded the nation. Government officials were fatigued from four long years of war. The agony of battle took its toll on families everywhere. Many citizens were filled with as much anger as hope. Even the anticipation of victory could not compensate for the loss of so many young men, cut down in death or disabled by horrible wounds just as they were preparing to harvest the fruits of their young lives.

And death and despair reached into nearly every home. An estimated 623,000 men died in the Civil War. One out of eleven men of service age was killed between 1861 and 1865. Comparisons with Americans killed in other wars bring the horror home. In World War I, the number killed was 117,000. In World War II, 405,000 died. In the Korean War, the death toll was 54,000. In the war in Vietnam, the number of Americans killed was 58,000. Deaths in the Civil War almost equal the number killed in all subsequent wars.

For example, New Braintree, Massachusetts, with a population of 805 shopkeepers, laborers, farmers, and their families, sent 78 young men to fight; 10 did not return. Phillipston, Massachusetts, population 764, dispatched 76 of its young citizens to fight; 9 died on battlefields. The people of Auburn, Massachusetts watched 97 soldiers go off to war; they would mourn the 15 who never returned. The people of the United States in the early 1860s felt the impact of war in their small communities. Had World War II produced the same proportion of deaths as did the Civil War, more than two and a half million men would have died.

Washington had never seen so many people as those who converged on the capital for Lincoln's second inauguration. Trains roared and smoked over the double tracks of the Baltimore and Ohio. The *Washington Daily National Intelligencer* reported, "Every train was crowded to repletion." Visitors were greeted by a band playing "The Battle Cry of Freedom." Each day the Washington newspapers listed the notables who were arriving. All knew they were coming to witness a unique event.

Hotels were overflowing. Willard's, the grand five-story hotel at Pennsylvania Avenue and Fourteenth Street, set up cots in its halls and parlors. The Metropolitan and the National were filled. "The hotels are literally shelving their guests," reported the correspondent for the *New York Times*. Lincoln-Johnson Clubs lodged more than a thousand visitors. Firehouses offered sleeping spaces.

Friends and supporters of the president, who was beleaguered during much of his first term, now declared

PP. 108-111 BROWN BROTHERS (2)

that the recent events vindicated his leadership. In an editorial published inauguration morning, the *Illinois Daily State Journal*, a friend of Lincoln's from his earliest campaigns as a legislator, declared, "All honor to Abraham Lincoln through whose honesty, fidelity, and patriotism, those glorious results [of the war] have been achieved." The *Chicago Tribune*, also a staunch supporter, proclaimed that "Mr. Lincoln . . . has slowly and steadily risen in the respect, confidence, and admiration of the people."

This second inauguration, so some of his supporters argued, ought to be a time for Lincoln to crow a bit. The *Daily Morning Chronicle* agreed. "We shall not be surprised if the President does not, in the words he will utter this morning, point to the pledges he gave us in his inaugural of 1861, and claim that he has not departed from them in a single substantial instance."

In spite of the inclement weather, Friday morning, March 3, visitors crowded the streets of the capital, where spring rains had just begun to turn the grass from winter brown to green. Chestnuts and elms, planted at the turn of the century, were not quite in bloom. Cherry blossoms would not be known in the capital until early in the next century. Nothing could hide the disorder and dirt that were everywhere. The national capital, scarcely six decades old, remained an almost-city. Charles Dickens, on his first visit to the United States, in 1842, had called Washington "the City of Magnificent Intentions." He described it as "spacious avenues, that begin in nothing, and lead nowhere; streets, mile-long, that only want houses, roads, and inhabitants; public buildings that need but a public to be complete."

When Lincoln had first come to the city as an Illinois congressman in December 1847, Washington had barely thirty-five thousand residents. The 1860 census counted 61,100 inhabitants. Thirteen cities ranked ahead of the capital in population. Most people would add that these cities also surpassed the capital in civility and culture. "If you want to be disgusted with the place chosen for the Capital of your country," wrote a visitor from Philadelphia, "visit it in the spring time, near the close of four days' rain, when the frost is beginning to come out of the ground. Whatever other objects of interest may attract your notice, the muddy streets and pavements will scarcely escape you."

The leading objects of interest were the Capitol building with its new iron dome, the Executive Mansion, the Post-Office, the Patent Office, and the Treasury. European visitors dismissed the White House as an ordinary country house. A great problem with the White House was its location near the Potomac Flats. This dismal body of water was held responsible for the outbreaks of malaria that occurred in summer and autumn. The Smithsonian Institution stood alone as a museum. A tour of all the important buildings in Washington could be completed in an afternoon.

The staggering number of war wounded and dying could not be confined to the city's hospitals. They could be found in hotels, warehouses, also schools, and lodges of fraternal orders. Georgetown College was turned into a hospital. Many private homes, and most churches, took in wounded. On Independence Day, 1862, some church bells could not be rung because the wounded lay beneath the bells.

The Patent Office held injured Union soldiers. Visitors to the Smithsonian could hardly miss the huge Armory Square Hospital nearby, which was in fact a series of parallel sheds. Even the Capitol building had been transformed into a hospital; two thousand cots placed in corridors and even in the Rotunda.

As Friday evening wore on, a dense fog descended over the capital followed by more rain, yet even the dismal weather could not dampen the spirits of the visitors. Among the arrivals were three fire companies from Philadelphia, nearly three hundred men dressed smartly in black fire hats, coats, and pants, and eye-catching red shirts. The capital became musical with military bands and serenaders. High in the fog, the lights of the now completed Capitol building created the effect of a halo over the festivities.

Within the government, there was no time yet for celebration. Lincoln met Friday night with his cabinet until a late hour, working to finish business related to the last acts of the outgoing 38th Congress. The Senate had been meeting all day and continued its session into the evening. As tempers flared and energy sagged, this legislative all-nighter became a strange prelude to the inaugural ceremonies on the morrow.

March 4 dawned with incessant rain as more visitors poured into the city, many arriving aboard special trains the railroad companies had prepared to accommodate them. The streets oozed with soft mud, described by locals as "black plaster." The Corps of Engineers surveyed the scene to determine the practicality of laying pontoons on Pennsylvania Avenue from the Capitol to the White House. They found the bottom too unstable to hold the anchors of the needed boats. The project was abandoned. During the early-morning hours, gale winds whipped through the city, uprooting trees.

The Senate and House worked on until seven o'clock in the morning. On one occasion a sudden burst of rain suggested "an explosion inside the building," causing many "to run towards the doors." The leaders of the House and Senate convinced the members to come back to their seats.

Fog continued to hang over the city as the crowd began arriving at the east entrance of the Capitol, with its radiant iron dome topped by its statue, *Armed Liberty*. (Despite the war, Lincoln had insisted that the work on the dome

Casualties of war (such as these Union soldiers in the Armory Square Hospital) crowded Washington's hospitals and public buildings.

MEDFORD HISTORICAL SOCIETY COLLECTION/CORBIS

proceed; its completion represented his hope that one day all the states and their representatives would meet again to do the nation's business.) Carriages were in great demand. The *Philadelphia Inquirer* reported that the arriving throng was present "in force sufficient to have struck terror into the heart of Lee's army (had the umbrellas been muskets)." As visitors and residents walked toward the Capitol, they encountered military patrols on horseback at every major intersection.

Some in the crowd remembered quite a different scene four years earlier. Trepidation and gloom had clouded March 4, 1861. Everything seemed in disarray. Sections of the dome lay jumbled near the inauguration stand, waiting for fitting. On his way from Illinois to assume the presidency two weeks before, Lincoln had to be spirited through Baltimore in disguise to avoid abduction. This episode, of which Lincoln was not proud, humiliated his supporters. Cartoonists ridiculed him, adding to the venom that was already spewing out in some of the press reports on the president-elect.

On the Saturday of the second inaugural, the rain stopped at nine-thirty. By ten-thirty, the skies were clearing. Then, at ten-forty, torrential rains came again. Open windows, crammed with sightseers, had to be slammed shut. Women tied their white handkerchiefs to their bonnets. Noah Brooks, correspondent for the *Sacramento Daily Union*, wrote that "Flocks of women streamed around the Capitol, in most wretched plight; crinoline was smashed, skirts bedaubed, and moiré antique, velvet, laces and such dry goods were streaked with mud from end to end." What should have been a brightly dressed gathering appeared instead thoroughly bedraggled by the elements of mud and wind. But as the reporter for the *New York Herald* observed, "The crowd was good-natured." They were there to participate in these grand events.

The ceremonial procedures would not differ substantially from Lincoln's

first inauguration. Yet there were differences. Instead of the small clusters of soldiers in 1861, large numbers of military could be observed throughout the city. In certain sections of the capital, multiplying numbers of Confederate deserters could be seen. Twelve hundred and thirty-nine disheartened Confederate soldiers had arrived in February. All the soldiers were marked by their wounds. Amputation had become the trademark of Civil War surgery. According to federal records, three out of four operations were amputations. Too often the surgery had to be repeated. Many visitors professed shock at the sight of so many young men with amputated legs or arms.

Black soldiers had changed the composition of the army from 1861 to 1865. For the first two years of the war, the Union Army was all white. Lincoln had initiated the North's employment of African-American troops when he issued the Emancipation Proclamation on January 1, 1863. The use of black troops prompted protests both in the North and in the South, but 179,000 black soldiers and ten thousand sailors would serve in the Union forces before the end of the war. By inauguration day, black soldiers had become a common sight in Washington.

The presence of so many blacks in the inaugural crowds particularly struck the correspondent for the *Times* of London. He estimated that "at least half the multitude were colored people. It was remarked by everybody, stranger as well as natives, that there never had been such crowds of negroes in the capital." Whereas many in the crowds, because of the mud, were dressed in "old clothes," African Americans, despite the dismal weather, were noticeable also because of their dress "in festive reds, blues, and yellows, and very gaudy colors."

By midmorning, the inaugural parade, which preceded the swearing in ceremonies in Lincoln's time, was forming. Grand Marshal Ward Lamon, an old friend from Illinois, went to the White House to escort the president to the Capitol. Lamon had arranged to have thirteen brightly clothed United States marshals and thirteen citizen marshals accompany Lincoln's carriage. Lamon did not know that Lincoln had driven off to the Capitol earlier in the morning to sign some bills, abandoning the usual protocol. As one observer noted, the parade was "the play of Hamlet with Hamlet left out."

The procession began to move at 11 a.m. from the corner of Pennsylvania Avenue and Tenth Street. At the front marched 119 metropolitan policemen. Union soldiers, many in shabby blue uniforms, followed. The three companies of volunteer firemen from Philadelphia were a hit with their smart uniforms. Chicago firemen drew their engine while they marched, as did companies from other cities. Local pride soared when the Fire Department of the City of Washington followed with its horse-drawn steam engines.

Mary Todd Lincoln (in an undated photograph) received the Bible on which her husband swore his oath of office.

Far down the parade line was something never before witnessed at a presidential inauguration. Four companies of black soldiers, members of the 45th Regiment United States Colored Troops, marched smartly. Immediately following was a lodge of African-American Odd Fellows, a fraternal organization. The crowd cheered.

Next in line came a series of floats, patriotic but a bit dowdy. First was the Temple of Liberty, a tent made out of muslin, now soggy. The original intention had been to surround the tent with young "maidens" from each state of the Union. The rain prompted the float's organizers to replace the young girls with boys. The boys entertained the crowd by singing patriotic songs such as "Rally Round the Flag" and "The Battle Cry of Freedom." The next float—drawn by four white horses, soon spattered with mud—presented by members of the Lincoln-Johnson Club of East Washington, bore a replica of the iron warship *Monitor*.

The crowd buzzed as the third float, carrying an operational printing press, came into view. Staff members of the *Daily Morning Chronicle* busily printed a four-page inaugural newspaper that contained a program for the day, copies of which were tossed to the spectators on both sides of the avenue.

The special marshals and the President's Union Light Guard escorted Mrs. Lincoln. The crowd cheered the presidential coach along the route from the White House to the Capitol, not knowing that the president was not present.

After a festive beginning, the parade suddenly came to a halt in a snarled confusion of horses, troops, and fire engines. Following twenty minutes without movement, an impatient Mary Lincoln commanded her driver to pull out and proceed by a back way to the Capitol. The parade finally resumed, now without either the president or the president's wife.

Posters, ribbons, ferrotypes, medals,

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By 1862, Lincoln viewed the arming of African-American troops as an "indispensable necessity" to avoid a defeat of the Union.

and tokens prepared for the 1864 presidential campaign were visible everywhere. One medal was inscribed "A Foe to Traitors," while another read "No Compromise with Armed Rebels." An 1864 campaign ribbon captured the now clearly understood twin goals of the war: "Union and Liberty." Another medal was inscribed "Freedom to All Men / War for the Union." The theme of human rights was captured in tokens. One side read "Lincoln," and on the other side was "Proclaim Liberty Throughout the Land." Another read "Lincoln and Liberty" on one side and, on the other, "Freedom/Justice/Truth."

The committee on arrangements was taking measures to move the inaugural ceremonies into the Senate chamber, in case the weather didn't improve. A decision to do so would be a great disappointment to the tens of thousands massing outside. At ten o'clock, the Senate galleries had opened and spectators rushed to secure seats. The press gallery of the Senate was crowded with reporters from across the nation. Undaunted by the mud on their grand skirts, women were settled above the assemblage in the ladies' gallery.

On the Senate floor, senators conversed with government officials and celebrity guests. Many eyes were riveted on the military heroes Admiral David G. Farragut and General Joseph Hooker. The diplomatic corps was resplendent in uniforms replete with gold lace and decorations. The air grew muggy. The ventilating system of the Capitol was insufficient to deal with the moisture and humidity. As more and more people crowded the Senate floor and galleries in their rain-soaked clothes, the temperature rose.

At eleven-forty-five, the official procession began to file into the chamber. The retiring vice-president, Hannibal Hamlin, and the vice-president-elect, Andrew Johnson, walked in together. The reporter for the *New York Herald* observed that Johnson, leaning on Hamlin's arm, was unsteady, but concluded that the likely reason was excitement. Lincoln was still signing bills in the president's room just off the Senate chamber.

At twelve o'clock, Hamlin, who had complained that the vice-presidency was a powerless job, began his farewell speech. Secretary of State William Seward and members of the Cabinet interrupted Hamlin's short speech as they arrived to take their seats. Next came the chief justice, Salmon P. Chase, leading in eight black-gowned elderly men, who took their places before the presiding officer's desk. Senators asked the vice-president to ask the women in the galleries to stop their "disrespectful giggling and chatter," but the request had no effect. Hamlin resumed his speech, only to be interrupted yet again when Mary Lincoln took her seat in the diplomatic gallery. Guests continued to arrive as he concluded.

Andrew Johnson was introduced and rose to give his inaugural speech. Lincoln had left the choice of a vice-president to the convention. Johnson, a war Democrat from Tennessee, had been chosen as Lincoln's running mate to symbolize the transformation of the Republican Party in 1864 into a National Union party. Lincoln had admired Johnson's courage in adhering to the Union after his state seceded. In the nineteenth century, the vice-president commanded less stature and visibility than today. Although two presidents, William Henry Harrison and Zachary Taylor, had died in office, accession to the presidency had not been a consideration in Johnson's nomination.

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Lincoln arrived and took his seat in the Senate chamber as Johnson began to speak. No one in the chamber was aware of how Johnson had spent the hour before his speech. He had not been well for several weeks, and the trip from Nashville to Washington had only made things worse. The morning of the inauguration, he went to the vice-president's office in the Capitol to await the official ceremony. Feeling unwell, he asked for some whisky. He filled his glass and drank it straight. On the way to the Senate chamber he had another. And then a third.

At the new vice-president's first utterance, it became obvious to all that Andy Johnson was drunk. The traditional brief inaugural speech of the vice-president became a rambling affair. Trumpeting that he had risen to this high office from the masses, he instructed all present that they owed their positions to the people. He did not even address the Cabinet members by their titles. The assembled dignitaries and guests were shocked. Attorney General James Speed whispered to Secretary of the Navy Gideon Welles, "The man is certainly deranged." He then sat with his eyes closed. Welles in turn whispered to Stanton, "Johnson is either drunk or crazy."

The *New York Herald* later reported that Johnson delivered "a speech remarkable for its incoherence which brought a blush to the cheek of every senator and official of the government." Johnson, scheduled to speak for seven minutes, spoke for seventeen. Finally, Hamlin pulled at Johnson's coat tail and the tribulation ended. But not quite. After Johnson took the oath of office, he put his hand on the Bible and said in a blaring voice, "I kiss this Book in the face of my nation of the United States." He followed his words with a drunken kiss. Lincoln bent over to Senator John B. Henderson of Missouri, a marshal for the inauguration, and whispered, "Do not let Johnson speak outside."

At eleven-forty the rain had suddenly ceased, and arrangements were completed to hold the ceremonies outside. President Lincoln was escorted through a corridor to the temporary wood platform that extended from the east front of the Capitol. Noah Brooks, who was Lincoln's friend as well as correspondent for the *Sacramento Daily Union*, described the immense crowd as a "sea of heads. As far as the eye could see, the throng looked like waves breaking at its outer edges."

Soldiers were dispersed throughout the crowd. Some had come in uniform from the camps. Many more came from area hospitals. Lincoln was always the soldiers' president. He liked to mingle with enlisted men and often visited wounded soldiers. The military personnel had returned a 75 percent vote for him in his re-election the previous November. Now thousands of them were present to witness the inauguration of their president.

In the crowd, Lincoln recognized Frederick Douglass, the articulate African-American abolitionist leader, reformer, and newspaper editor. Lincoln's First Inaugural Address had dismayed Douglass. He had found Lincoln's words much too conciliatory toward the South. Douglass visited Lincoln in the White House in 1863 and again in 1864 to speak with the president about a variety of issues concerning African Americans. Douglass's attitudes about the president during the Civil War had whipsawed back and forth from disgust

In the Senate chamber, a drunken Andrew Johnson sealed his oath of office as Vice President with an emotional kiss.

Frederick Douglass, disheartened by Lincoln's first inaugural compromise on slavery, approached the second warily.

Lincoln-hater John Wilkes Booth, who had been planning to kidnap the President, was among the crowd of Capitol onlookers.

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A Lincoln

On Inauguration Day, ten inches of mud covered the avenues, making the inevitably filthy streets of Washington worse than usual.

to respect, and from despair to hope.

Up behind the right buttress stood the actor John Wilkes Booth. Lincoln had seen Booth perform at Ford's Theatre the previous November. Booth, twenty-six years old, had been an actor since he was seventeen. Seething with hatred, Booth had been working on a plan to abduct Lincoln and take him to Richmond. Now that the South's military fortunes had taken a turn for the worse, Booth resolved that stronger measures were needed. He was in touch with the Southern Secret Service as he sought an opportunity to do something "heroic" for the South. He came to hear the Second Inaugural for his own dark motives. He must have wondered, what would this false president say?

When Lincoln was introduced, the crowd exploded. Brooks reported, "A roar of applause shook the air, and again, and again repeated." The military band played "Hail to the Chief," helping to build the enthusiasm of the gathering. The applause and cheers rolled toward those in the farthest reaches of the crowd. Finally, George T. Browne, sergeant-at-arms of the Senate, arose and bowed with black hat in hand, a signal for the crowd to become still.

Abraham Lincoln rose from his chair. He stepped from underneath the shelter of the Capitol building and out past the magnificent Corinthian columns. At fifty-six, he looked older than his years. He advanced to a small, white iron table, the single piece of furniture on the portico. We do not know how it got there. It well may be that its maker, Major Benjamin Brown French, a Lincoln admirer, simply placed it there. The table, made out of pieces from the dome's construction, symbolized for French the reuniting of the fragments of the Union. A lone tumbler of water stood on the little table.

As Lincoln rose, he put on and adjusted his steel-rimmed eyeglasses. He held in his left hand his Second Inaugural Address, printed in two columns. The handwritten draft had been set in type. The galley proof was clipped and pasted in an order to indicate pauses for emphasis and breathing.

Precisely as Lincoln began to speak, the sun broke through the clouds. Many persons, at the time and for years after, commented on this celestial phenomenon. Michael Shiner, an African-American mechanic in the naval shipyard in Washington, recorded his awe in his diary entry for March 4: "As soon as Mr. Lincoln came out the wind ceased blowing and the rain ceased raining and the Sun came out and it became clear as it could be and calm." Shiner continued: "A star made its appearance . . . over the Capitol and it shined just as bright as it could be." Brooks reported the same phenomenon. "Just at that moment the sun, which had been obscured all day, burst forth in its unclouded meridian splendor, and flooded the spectacle with glory and with light."

Lincoln prepared to speak:

SIMON & SCHUSTER; P. 119 MESERVE-KUNHARDT COLLECTION/PICTURE HISTORY, MOUNT KISCO, NEW YORK

The Second Inaugural

MARCH 4, 1865

FELLOW COUNTRYMEN: AT THIS SECOND APPEARING, TO take the oath of the presidential office, there is less occasion for an extended address than there was at the first. Then a statement, somewhat in detail, of a course to be pursued, seemed fitting and proper. Now, at the expiration of four years, during which public declarations have been constantly called forth on every point and phase of the great contest which still absorbs the attention, and engrosses the enerergies [sic] of the nation, little that is new could be presented. The progress of our arms, upon which all else chiefly depends, is as well known to the public as to myself; and it is, I trust, reasonably satisfactory and encouraging to all. With high hope for the future, no prediction in regard to it is ventured.

On the occasion corresponding to this four years ago, all thoughts were anxiously directed to an impending civil war. All dreaded it—all sought to avert it. While the inaugeral [sic] address was being delivered from this place, devoted altogether to *saving* the Union without war, insurgent agents were in the city seeking to *destroy* it without war—seeking to dissole [sic] the Union, and divide effects, by negotiation. Both parties deprecated war; but one of them would *make* war rather than let the nation survive; and the other would *accept* war rather than let it perish. And the war came.

One eighth of the whole population were colored slaves, not distributed generally over the Union, but localized in the Southern part of it. These slaves constituted a peculiar and powerful interest. All knew that this interest was, somehow, the cause of the war. To strengthen, perpetuate, and extend this interest was the object for which the insurgents would rend the Union, even by war; while the government claimed no right to do more than to restrict the territorial enlargement of it. Neither party expected for the war, the magnitude, or the duration, which it has already attained. Neither anticipated that the *cause* of the conflict might cease with, or even before, the conflict itself should cease. Each looked for an easier triumph, and a result less fundamental and astounding. Both read the same Bible, and pray to the same God; and each invokes His aid against the other. It may seem strange that any men should dare to ask a just God's assistance in wringing their bread from the sweat of other men's faces; but let us judge not that we be not judged. The prayers of both could not be answered; that of neither has been answered fully. The Almighty has his own purposes. "Woe unto the world because of offences! for it must needs be that offences come; but woe to that man by whom the offence cometh!" If we shall suppose that American Slavery is one of those offences which, in the providence of God, must needs come, but which, having continued through His appointed time, He now wills to remove, and that He gives to both North and South, this terrible war, as the woe due to those by whom the offence came, shall we discern therein any departure from those divine attributes which the believers in a Living God always ascribe to Him? Fondly do we hope—fervently do we pray—that this mighty scourge of war may speedily pass away. Yet, if God wills that it continue, until all the wealth piled by the bondman's two hundred and fifty years of unrequited toil shall be sunk, and until every drop of blood drawn with the lash, shall be paid by another drawn with the sword, as was said three thousand years ago, so still it must be said "the judgments of the Lord, are true and righteous altogether[."]

With malice toward none; with charity for all; with firmness in the right, as God gives us to see the right, let us strive on to finish the work we are in; to bind up the nation's wounds; to care for him who shall have borne the battle, and for his widow, and his orphan—to do all which may achieve and cherish a just, and a lasting peace, among ourselves, and with all nations.

That night, at a reception at the White House, the President sought out abolitionist Frederick Douglass. "I saw you in the crowd today, listening to my inaugural address," Lincoln said. "How did you like it?"

Douglass demurred. "I must not detain you with my poor opinion," he said. But Lincoln pressed on.

"There is no man in the country whose opinion I value more than yours," he said. "I want to know what you think of it."

"Mr. Lincoln," Douglass replied, "that was a sacred effort."

Forty-one days later, on April 15, 1865, Lincoln was dead.

PEOPLE FILE

A Model Son

CHESAPEAKE BAY'S MARITIME HISTORY COMES ALIVE IN MINIATURE WOOD CARVINGS BY A MARYLAND CRAFTSMAN

BY WENDY MITMAN CLARKE

Taught how to wield a carving knife by his father, Jimmy Langley (beside his diorama of Solomons, Maryland) also adheres to his dad's belief in taking the time to do a thing right.

THE ELABORATE, 4- BY 8-FOOT diorama at the Calvert Marine Museum here in Solomons, Maryland, portrays this hardworking Chesapeake Bay community as it looked a century ago: a steamship tied up at the wharf, cows grazing among the outhouses, shipyards lining the shoreline. Most people study the diorama from above, but Jimmy Langley, who's 55, drops into a squat. "I prefer this view," he says. "It's just like you're in a real boat and you come around the island and look all the way to Strathmore Farm."

He's right. From below you're pulled right in. A forest of bugeye and skipjack masts tangles the busy harbor's skyline. Neat, white clapboard houses perch along the slight spine of land poking into the Patuxent River, and workboats await their call to the booming oyster harvest.

It took Jimmy Langley nine months to build all this. He carved the houses and boats and tiny cows—everything but the steamboat, which was carved by his father, James Leroy "Pepper" Langley, who died last year at age 86. Now curator of exhibits at the museum, Jimmy combines his rare talent for carving with a commitment to preserve the history of the place where he grew up. "Coming from that region and modeling boats from that region," says Paula Johnson, a curator at the Smithsonian's National Museum of American History, "he has a natural sense and feel for the details."

In the beginning, there was Pepper, who went to work at the M. M. Davis & Son Shipyard in the 1930s and soon became its top painter, inscribing a boat's name and home port on its transom in a script so distinctive that any connoisseur of his work can recognize it at a glance. After Solomons' shipyards declined, replaced by marinas for pleasure boaters, Pepper continued lettering and woodworking on his own while employed as an airplane model maker for the Patuxent River Naval Air Station to support a family of six children. Jimmy, the third child, was fascinated by his father's calling. He spent hours in Pepper's shop just watching and listening. "I remember when I was 3 or 4 years old," he says, "I was astounded that he could take a brush and dip it in paint and create what seemed to be perfect 360-degree circles and ruler-straight lines."

The father put the son to work when Jimmy was 11. A nearby beach club had some 30 signs with a logo—a woman diving out of Art Deco clouds—that had to be repainted once a year. "Those women all had yellow bathing suits. I can still show you today what that bathing suit looked like," he says, grabbing a piece of paper and sketching a quick outline.

When Pepper quit lettering to concentrate on carving scale models, boatyard and marina owners started calling Jimmy with work. "I guess they fig-

ALL: REGIS LEFEBURE

ured, 'He can do it,'" Jimmy says. "But I *couldn't*." It took him months to acquire the knack. "When you're lettering, you don't look where you are," he explains. "You look where you're going to be. So your hand is following where your eyes are pointing."

Learning how to carve boats and birds had come easier. As a duck-hunting teenager, Jimmy had carved his own decoys out of economic necessity. Pretty soon, he graduated to owls, snow geese and herons. Eventually Jimmy received a scholarship to study art in Baltimore, but, homesick, he quit after a year and returned to Solomons. He found work as a sign painter and carved on the side. Then he signed on as a model-maker's apprentice at the Calvert Marine Museum, where the carver in residence was none other than Pepper Langley.

Jimmy's first assignment was to create a scale model of a Potomac River dory for an exhibit. His father was modeling a Chesapeake Bay workboat called *The Prospector*. "We sat together at that table in the museum shop for nine months," Jimmy recalls, "and built those models."

Jimmy's aim is historical, not aesthetic. Each model is based on a real boat and done to exacting scale.

By now, he has lettered thousands of boats and carved more than 75 miniatures. "His models are terrific and very beautiful," says Paula Johnson. But Jimmy's aim is historical, not aesthetic. Each of his models is based on a real boat and done to exacting scale. He uses the same construction methods the original builder used, right down to the wood he chooses—mahogany, pine, teak, cherry, oak.

Jimmy painstakingly carves every little detail himself—working blocks the size of corn kernels, a yacht's wheel no bigger than a Ritz Bitz, each needle-thin spoke clearly delineated. Even the grain in the wood is to scale. "Rather than three or four grains in a piece of quarter-inch wood, there might be 20 grains, real fine," he says. "So it looks like an actual piece of wood that would have been in there."

Jimmy's favorite model is an indigenous Chesapeake Bay boat called the Hooper Island draketail, narrow as a stiletto, powered by a gasoline engine and notorious for outrunning Coast Guard cutters and police patrol boats back in the rum-running days of the 1920s and early '30s. Jimmy's model,

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There's not much Langley (carving an eagle out of sugar pine) can't do with his hands.

scaled at a half-inch to the foot and built of cherry, looks as if it's ready to launch right off its stand. Jimmy left one side and part of the deck unplanked so people who see it on display at the museum can learn exactly how such boats were made.

As the man in charge of exhibits at the museum, Jimmy doesn't build many boats these days, but he continues to carve birds and make boat signs. In his bright office, he pulls from under his desk a mahogany box with brass corners and a brass latch. He opens it to reveal three small sliding drawers filled with the lovely hand tools he uses to carve—broad chisels of polished high-carbon steel from Switzerland, tiny knives for the intricate tips of a heron's wing. He turns the tools over in his hands, describing the provenance of his favorites. "Wood is so beautiful," he muses. "And you think, every one of those rings you see in wood represents a year. And here I am, carving this piece of 90-year-old wood that was here 35 years before I was born." He smiles. "Who knows what was going on back then, or who walked under that tree?"

Wendy Mitman Clarke, executive editor of Chesapeake Bay Magazine, *has a passion for indigenous Bay boats.*

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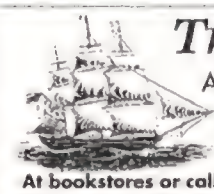

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PRESENCE OF MIND

Wittgenstein's Ghost

WHEN TWO PHILOSOPHERS NEARLY CAME TO BLOWS, THEY DEFINED A DEBATE THAT RAGES A HALF CENTURY LATER

BY PAUL TRACHTMAN

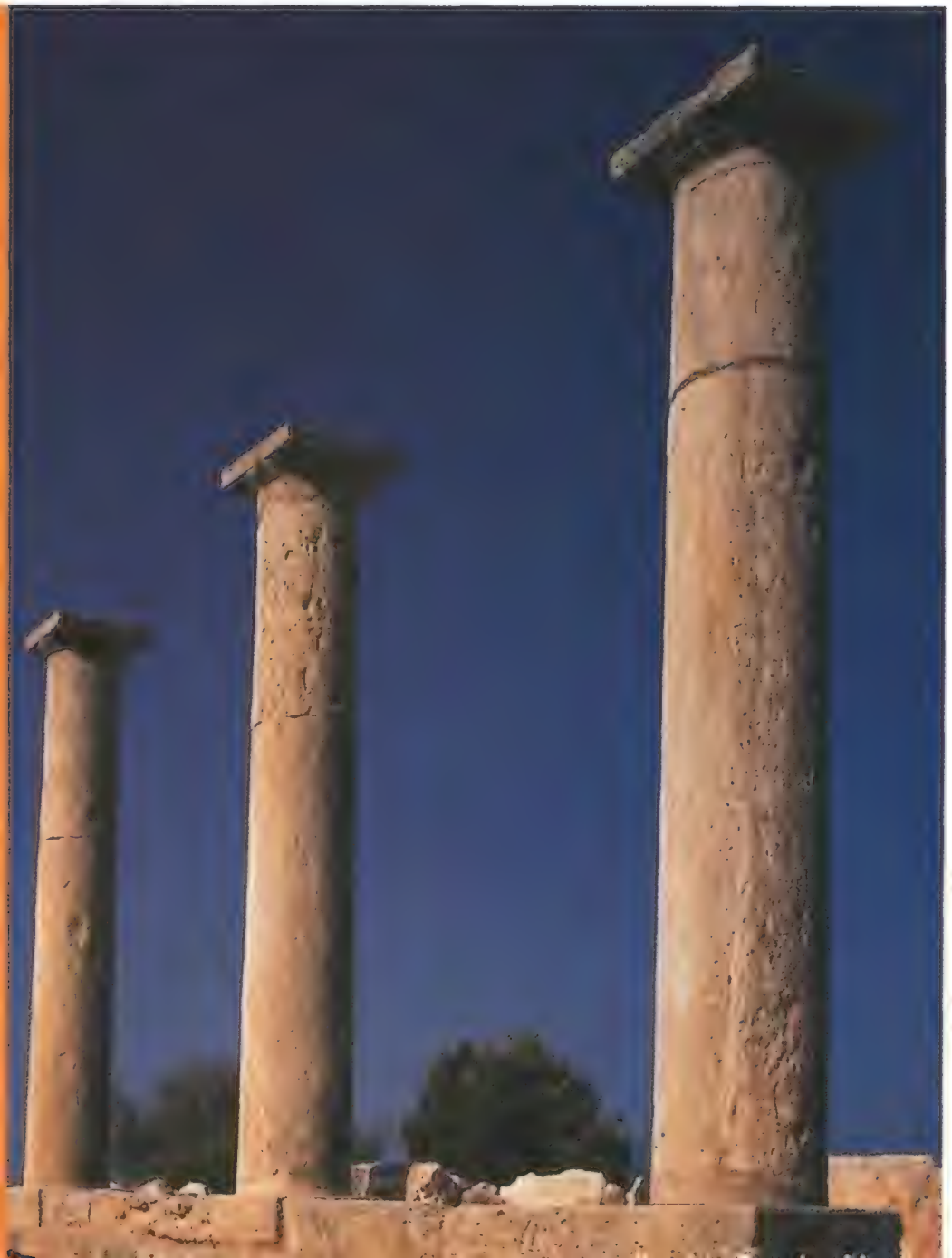
MORE THAN 50 YEARS HAVE PASSED since two famous philosophers squared off against each other at England's Cambridge University. Though their raucous debate lasted only ten minutes, it still stirs the passions of their followers.

Both men were Viennese expatriates, refugees from the rise of Hitler and the ravages of World War II. But the war was only a backdrop for the clash of ideas as they faced each other for the first time, on October 25, 1946.

One of the two, Ludwig Wittgenstein, picked up an iron poker from the fireplace and waved it at the other, Karl Popper. Or maybe he only waved it in the air for emphasis, as he shouted "Popper, you are wrong! You are *wrong*!" Maybe the poker was red hot, or perhaps it was cold. Although the room was packed with eminent philosophers and their students, no one could agree afterward on exactly what took place.

When the illustrious philosopher Bertrand Russell ordered Wittgenstein to put down the poker, he did so and, after exchanging a few angry words with Russell, left the room. According to some, he slammed the door. Ever since Wittgenstein laid down that poker, colleagues and students who were present, and even those born many years later, have taken up the cudgels in an argument that was left unsettled.

The argument is back thanks to a lively new book, *Wittgenstein's Poker*, by two BBC reporters, David



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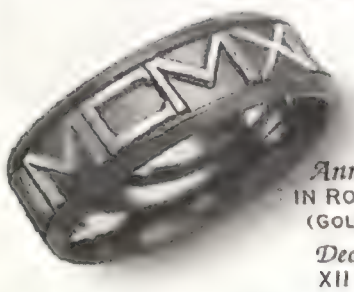

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Edmonds and John Eidinow. They were inspired to write it by a bristling exchange of letters in the *London Times* Literary Supplement in 1998, over who said what, and when, during that infamous Cambridge seminar.

What stirs the passions of philosophers may seem trivial to the rest of us, who get by with mere common sense. Wittgenstein had sent Popper an invitation to discuss "some philosophical puzzle." That got Popper's goat. He had real problems on his mind, not puzzles. In fact, that was the crux of the matter. Wittgenstein insisted there were no real problems in philosophy, only the puzzling way philosophers talked about the world. After one Cambridge seminar he was heard to say, "Bad philosophers are like slum landlords. It's my job to put them out of business."

The authors of *Wittgenstein's Poker* have fleshed out the philosophical ideas with warts-and-all portraits of the protagonists and their colleagues. There are warts aplenty. Wittgenstein was regarded as an austere, domineering genius who often destroyed students' ability to think for themselves. One student called him "an atomic bomb." Popper was no less imposing; his aggressive style of argument, said a friend, "put me in mind of a blowtorch."

And between them there's Bertrand Russell, whose academic achievements in logic and mathematics paled before his public notoriety as the philosopher—and proselytizer—of free love. Russell had helped Wittgenstein publish his first book, composed in the trenches of World War I. He even wrote the introduction. At first, Russell saw Wittgenstein as a brilliant young successor. He told a friend, "His avalanches make mine seem mere snowballs."

No doubt Wittgenstein agreed; he thought Russell's introduction to his book completely missed the point. Russell eventually soured on Wittgenstein, describing his former protégé's writings as "completely unintelligible." Russell, who had also assisted Popper in getting established, ended up taking his side in the brouhaha with Wittgenstein.

Edmonds and Eidinow have told this story with an evenhanded treatment of all parties. Yet, like Russell, they've missed the point. They have stirred the ashes of the debate but not the fire. What that waving poker was pointing at was not a distinction between puzzles and problems, but something more urgent and relevant. It was a warning, to all of us, that whenever philosophers, or scientists, or any other intellectual elite claim to possess some truth

Wittgenstein's students found him "incandescent with intellectual passion."

HULTON ARCHIVE/GETTY IMAGES

that runs counter to common sense, they are talking nonsense.

Wittgenstein had a hard time getting this point across. The simple truth at the heart of his argument was unacceptable to thinkers convinced that philosophy could address many problems plaguing humanity. To take his point would put a lot of professors out of work. Yet he tried desperately to make himself clear, from his earliest words to his last. In the preface to his first book he wrote, "The whole sense of the book might be summed up in the following words: what can be said at all can be said clearly, and what we cannot talk

about we must pass over in silence." Indeed, he has often been called a mystic.

In fact, he wanted philosophers to shut up about most of what matters in everyday life: ethics, aesthetics, nature, religion. On such subjects, formal languages like logic and science can only send us off "in pursuit of chimeras." It is because these formal languages follow strict rules and rule out contradictions that they lack common sense and give a misleading view of the world. "It is like a pair of glasses on our nose through

Popper could appear "apprehensive and insecure" until he expounded his views.

which we see whatever we look at," he admonished his colleagues. "It never occurs to us to take them off." As for his attacks on philosophy, he said, "What we are destroying is nothing but houses of cards. "

Poor Popper didn't have a clue. He was a paragon of pure reason armed only with logic, confronting the mind of a mystic uttering paradoxes and waving a poker in the air. Popper was best known for his book *The Open Society and Its Enemies*, which attacked Communism and challenged Marxist theory as pseudoscience. Wittgenstein waved this off as the concern of sociology. He had more universal fish to fry. "Philosophy," he said, "is a battle against the bewitchment of our intelligence by means of language."

Although Wittgenstein, who died in 1951 at age 62, did not live to see the most striking example of this bewitchment—the pursuit of artificial intelligence in computers—his ghost sat next to me at a seminar on this subject at the Smithsonian Castle in the 1980s. Bill Woods, a scientist who had struggled to make computers understand ordinary language, offered a confession. "We assumed," he said, "we could start with simple children's stories and work our way up to complex fields like physics and astronomy. It turned out that understanding physics and astronomy is extremely simple compared to the problem of understanding children's stories." Bewitchment indeed, muttered Wittgenstein's ghost.

The ghost turned up again a few years later when I was talking to another artificial intelligence pioneer, John McCarthy, at Stanford University. McCarthy was explaining his efforts to impart reason to computers. "I estimate there are only about 12 or 13 rules that are needed for the logic of common sense," he said. "I've figured out 5 of them, and I'm sure we'll understand the rest in a few years. Then we can program any computer with common sense." That achievement, as it turned out, has proved elusive.

Our scientists and philosophers are still misleading us in their pursuit of chimeras. Lately, the talk of cloning people has got Wittgenstein's ghost reaching for his poker again. We are dealing with imponderables once more, and talking as if we knew what we're talking about when we don't.

The actual poker Wittgenstein waved at Popper back in 1946 mysteriously disappeared after the incident. But Wittgenstein's ghost, ever skeptical, still brandishes it.

Longtime contributor Paul Trachtman was formerly a science editor at SMITHSONIAN.

WITTGENSTEIN'S POKER BY DAVID EDMONDS AND JONH EIDINOW, HARPER COLLINS PUBLISHERS 2001

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Table Talk

A MAGAZINE SHOULD HAVE THE ZEST OF A GOOD DINNER PARTY

BY OWEN EDWARDS

I GREW UP IN THE ROMANTIC AGE of magazines, back when only movies, radio and face-to-face conversation competed with print for America's collective attention. I remember sitting on the floor next to my mother's favorite chair, eagerly turning the lush and promising pages of the latest *Vogue* and *Harper's Bazaar* as she devoured them from cover to cover and then dropped them at her feet. I complete the mnemonic picture by placing my father in his chair just across the small living room of our rented house, smoking one Pall Mall after another, with the latest issues of *Life*, the *Saturday Evening Post*, *Collier's* and *Blue Book* in his lap.

Magazines in those days—at least the magazines my parents bought—were intimate experiences, akin to visits with knowing, worldly acquaintances. They were not therapists, or self-help gurus, or practical instructors, or starstruck gossips. Instead, they were fascinating companions, telling stories—some real, some invented—about the world beyond, in my parents' case, suburban New Jersey. Loyal readers waited for them to arrive, weekly or monthly, as if waiting for a cherished guest.

As an editor myself, I have always believed that the best magazines resemble memorable dinner parties, with writers and readers brought together for intriguing conversations. As at the most carefully planned parties, the guests are equally interesting, so that while the writers do the talking, the listeners enjoy responses sparked by their own knowledge and experience. This was how my parents felt about magazines, and how I will always feel about them, even as the level of sophistication declines and the level of condescension rises—general interest in a downward spiral with general curiosity. I suspect the editor of this magazine (whom I have known for years) considers himself a dedicated host. If, as someone has said, the Smithsonian Institution is America's attic, then he likely means SMITHSONIAN to be America's dinner party—food for thought, with no concern for calories.

So here I am, at the door in my overcoat, asked by our host to comment on how good a party we've all just attended. I worry about ingratitude, and I'm hampered by an insider's knowledge of how difficult it can be to bridge the gap between magazine dreams and magazine reality. It's an odd job, writing a column that seems to invite a bite of the hand that pays me, and not a comfortable role. How many wonderful dinner parties do we go to in a life? How many magazines do we ever truly love? In a noisy, distracting world, what are the chances of assembling a table full of well-matched guests, or a table of contents of articles and essays that entertain each reader with the perfect pitch of a gifted raconteur? I've never quite managed either myself, though I've certainly had high hopes. Success depends as much on luck, timing and happenstance as on clever calculation. So it seems mean-spirited to complain at all about what has, all in all, been a very enjoyable evening, which, with the ad-

dition of a pack of Pall Malls and some Avedon pictures of Balenciaga dresses, might have satisfied Mom and Dad very nicely.

Because I'm left-handed, I tend to thumb through magazines back to front (perhaps giving my editorial work over the years a hint of dyslexia). In the case of this issue, that reverse order let me start dinner with dessert, in the form of the appropriately sweet "Changing Spots" by Edith Pearlman. In this memoir about how her mother's leopard coat, such a sinful luxury by today's environmental standards, became smaller and smaller over the decades, ending as a memory-jogging button in an 11-year-old's hand, Pearlman reminded me of a home movie of my own young mother, on a Christmas morning, showing off her first fur, a chic wool coat with an ample silver fox collar. How I'd like to have some vestige of the coat that, at the end of the Depression and the beginning of a world war, made my mother so momentarily happy. And how glad I was that, for a few minutes, I'd sat next to Pearlman at the table.

The same flash of recognition came reading the essay about Robert Capa and his joyful photograph of Picasso shading Françoise Gilot with a beach umbrella. I have always loved that happy snap and, coincidentally, as the ad hoc photo editor of a recent issue of *Forbes ASAP*, included it among a group of pictures illustrating the pursuit of happiness. Though I know quite a lot about Capa, and know his brother personally, I learned here about the death of Capa's lover during the Spanish civil war, prefiguring his own death in war decades later. But I'd like to have known how the author, my momentary dinner companion, felt about the photograph. Did it help her forgive Picasso for the sexist image severe feminist art historians have given him? Or did she never buy that particular irrelevance in the first place? In other words, why does she care, and does she care as much as I care?

Ditto for Mary K. Miller's "It's a

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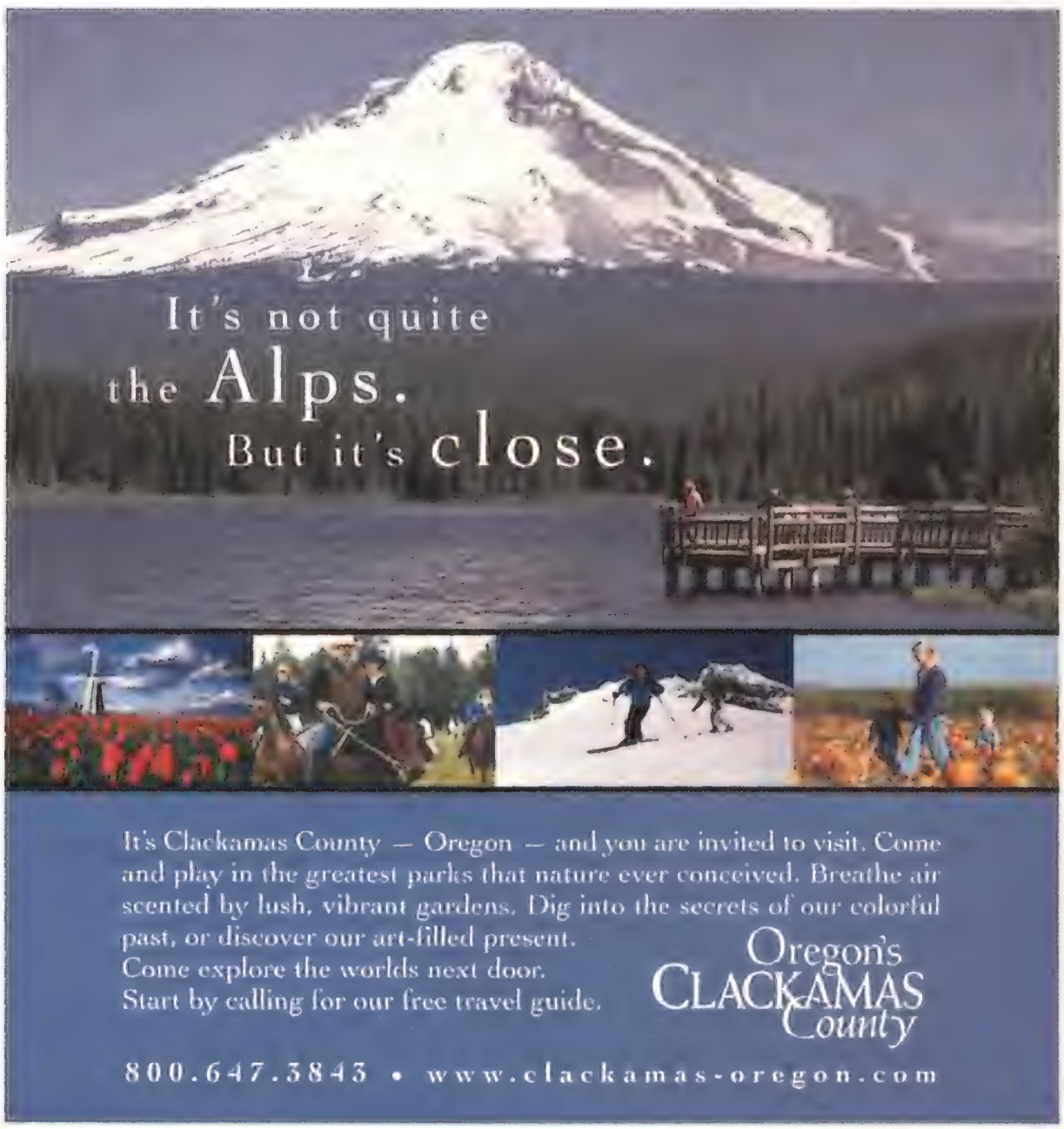
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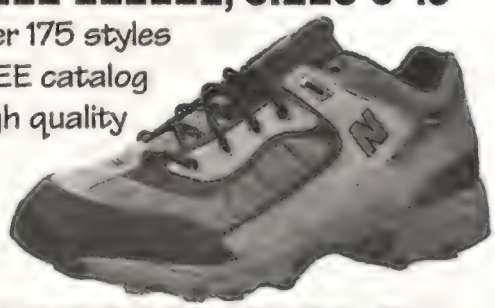

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I'll admit that not every writer's sub-

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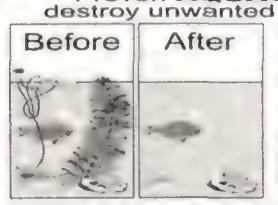

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ject matters much to me. I felt admiration, but little else, for the volunteers replicating Thoreau's cabin. For my taste, the *Walden* author has always been a bit woodsier-than-thou. And it seems that every spring, as the sap rises, so does another essay about harvesting maple syrup. The piece by David DeVoss on Ping-Pong diplomacy was a pointed reminder of how the most unexpected things can change the course of history, and briefly raises the tantalizing question about why baseball has not changed our minds about Castro (certainly a far less culpable figure than Mao). But it's also a reminder of how long ago the recent past can be, and an implied rebuke at how little some of the notable events I lived through mean to me now.

I won't go piece by piece through the issue; some of the writers are friends, and having had words fail me on many occasions (or was it I who failed the words?), I'm reluctant to take good writers to task for their labors in a very stony vineyard. You can never read enough about Goya, I suspect, or worry enough about the fate of salmon, or be reminded enough that the fear of knowledge has been—and goes on being—an indefatigable destroyer of books for thousands of years. But where are the personal connections that take stories beyond the level of facts, however interesting those facts may be? Perhaps, in a spin-blurred era where agendas lurk everywhere, well-meaning writers are backing away from such motivations as enthusiasm, passion and a powerful personal curiosity. In the end, though, there's a cost to complete abandonment of personal voice. We trust these writers, we find out things we hadn't known, we're glad the host invited them and us, and we'll certainly come again. But without knowing why our storytellers give a damn, will we?

Owen Edwards is the senior consulting editor for Forbes ASAP *and is a contributing editor at* GQ. *He is the coauthor, with Jim Clark, of the book* Netscape Time.

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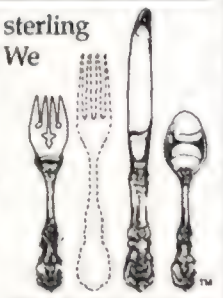

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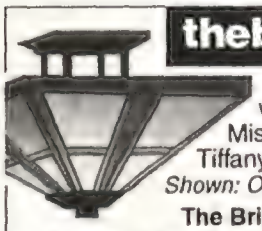

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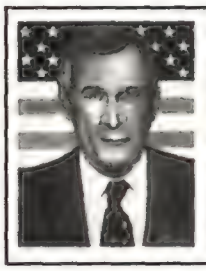

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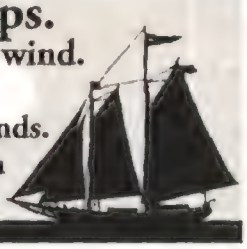

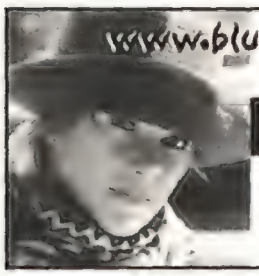
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Reporter Thomas Chester punched the Confederate officer in the nose and went on writing his story.

of TV's *Hardball* fame, who has written on the political rivalry between John F. Kennedy and Richard M. Nixon, dramatizes two lives that paralleled in surprising ways. Kennedy, as nearly everyone knows, saved his crew after his PT boat was cut in half by a Japanese destroyer. Nixon, also in the Navy, was stationed in the South Pacific as well, only about a hundred miles away from the site of Kennedy's exploits. Nixon was a supply officer, "sort of a Sergeant Bilko character," as Matthews describes him, who ran a canteen called Nick's, where he was so successful at poker that he came home from the war with $10,000 in his kitty.

The best anecdote, however, comes from an interview with James M. Perry, author of a book about Civil War news reporters. After the fall of Richmond in 1865, the war's only black correspondent, one Thomas Chester, was seated in the Speaker's chair of the Confederate Congress, writing a dispatch. A young Confederate officer, seeing Chester, ordered him out of the chair. Chester got up, punched the rebel in the nose, toppling him to the floor, then went back to writing his story. It is a moment that encompasses the rage of millions, the hurt of centuries and the dignity purchased by bloody conflict.

While they are arranged in chronological order, these conversations invite you to dip in and out for unexpected mixtures of historical flavor. One day I read H. Paul Jeffers on Grover Cleveland's political career and Allen Weinstein on Soviet espionage. The result was a sort of intellectual bouillabaisse, tasty, nourishing and not too filling.

Fergus M. Bordewich is the author of Killing the White Man's Indian, *a work of history, and* My Mother's Ghost, *a memoir.*

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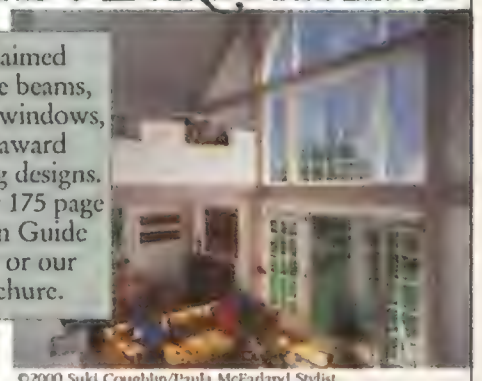
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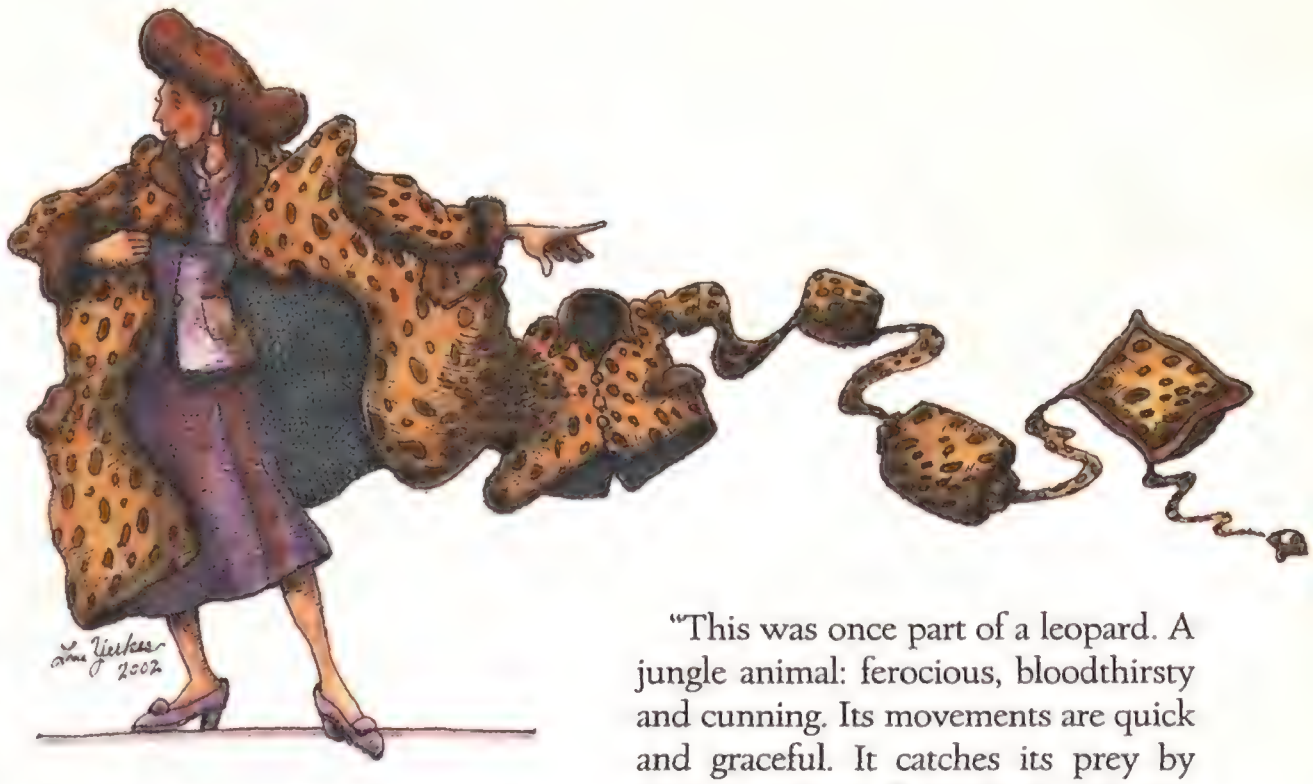
THE LAST PAGE

Changing Spots

BY EDITH PEARLMAN



DURING THE 1930S THE ANIMAL rights movement was in its infancy and had little impact in Providence, Rhode Island, where my parents lived. My mother, newly married and determined to trim the claws of the Depression, went on the prowl for the most openly spendthrift item she could find—a fur coat. She chose leopard.

I knew the coat only from a photograph. It reached almost to my mother's ankles; the belt tied itself around her slender waist. The ends of her long pageboy just brushed the spotted shoulders—human hair meeting animal in a glossy caress.

I encountered the leopard in person, so to speak, ten years later, when it began a new life. The skirt of the coat was becoming noticeably threadbare; meanwhile, my aunt Rae had married Phil the Furrier. Uncle Phil was eager to endear himself to his new family. He removed the belt and cropped the coat at hip level. The resulting jacket was a swirl of spots. My mother wore it everywhere—to movies, to PTA meetings, to war bond rallies.

In the 1950s, Uncle Phil transformed the jacket again. It became a pillbox hat. During the first year of my mother's widowhood, the pillbox looked particularly golden above her sad dresses, her dark coat.

A few years later, Uncle Phil turned the hat into a muff. I wore it to college football games. Helplessly losing sight of the pigskin, I studied instead the muff's markings: four velvety dots, like paw prints, repeated again and again and again.

In my first apartment, the muff, filled with feathers, became a notable pillow.

Uncle Phil was eager to endear himself to his new family. He removed the belt and cropped the coat at hip level.

It acquired the aroma of beer, pot, perfume and pheromones. "Oh, that thing looks terrible, the stuffing's coming out. Let me have it," demanded my mother on one of her imperious visits.

And that was the last I saw of it until, 20 years later, examining her effects, I noticed that a green crepe blouse had been rather unsuccessfully adorned with a single leopard-fur button. I snipped the button off.

Not much later, my then 11-year-old daughter discovered it in a box. She was already an environmentalist, a vegetarian and a socialist. "What is *this*?" she demanded.

"This was once part of a leopard. A jungle animal: ferocious, bloodthirsty and cunning. Its movements are quick and graceful. It catches its prey by springing down from the bough of a tree. It will eat any animal it can overcome, having a special fondness for 11-year-old vegetarian girls."

But I didn't say that. I said nothing at all, and my daughter turned her fierce attention to other oddments that she found in the box: an enameled compact, a pin shaped like a ladybug and a book of poems.

I picked up the button and sniffed it. I held it in my palm, recalling the prickle of leopard skin at my nape as I smoked a joint, the Hail Mary pass I missed seeing because I was counting the rosettes on my muff, the pillbox at the graveside, the swing of the spotted jacket as its wearer dragged a sackful of tin cans to the curb for the war effort. I thought of the determined young bride in the long belted coat and of the handsome leopard, transformed over and over, that had faithfully accompanied us through loss, and confusion, and growing up, and growing old.

Edith Pearlman's book of short stories, Love Among the Greats, is due out this summer.

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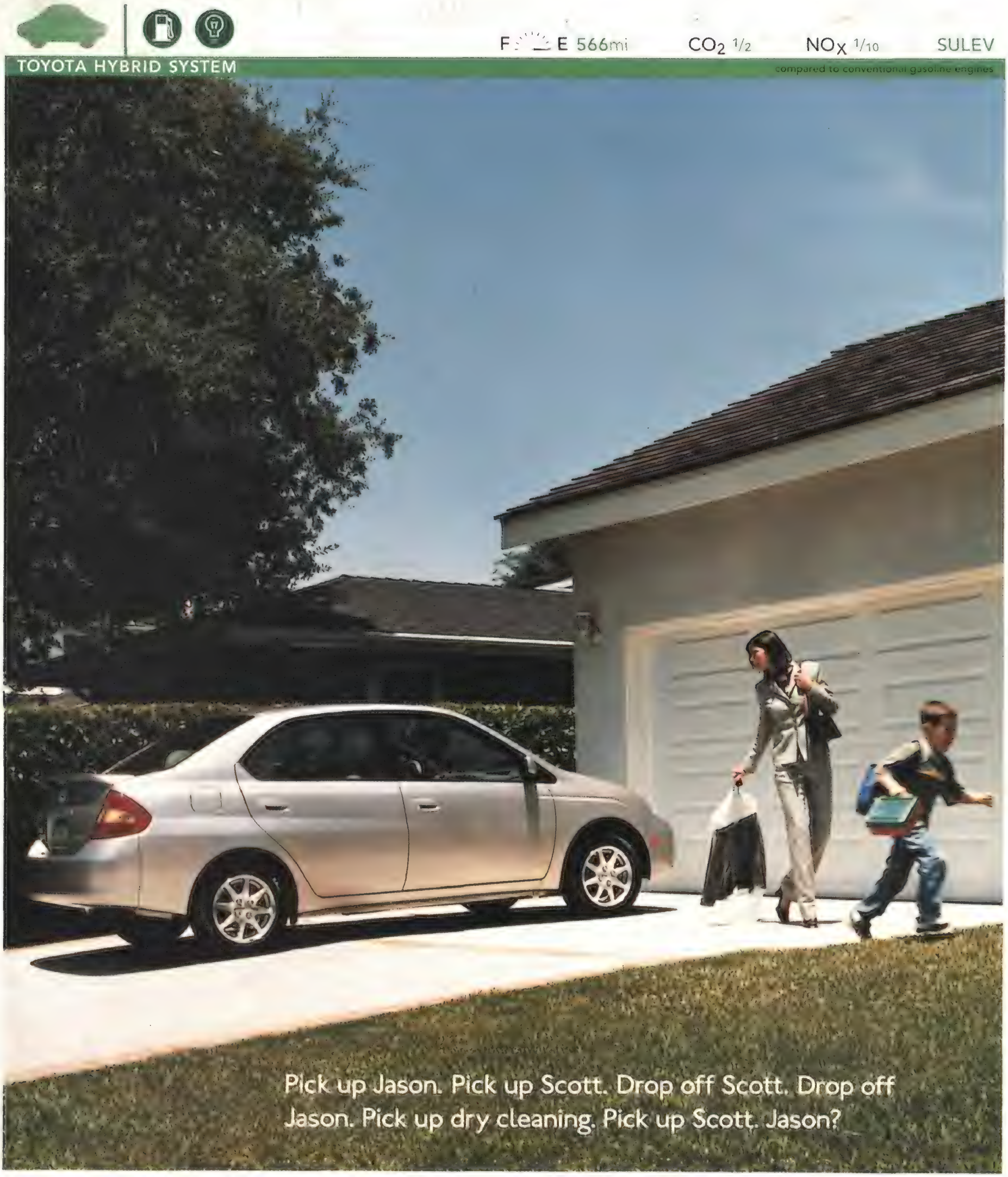
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From around the corner to around the world, travel provides an escape that can be intellectually stimulating, culturally unique, conservation- and ecotourism-oriented, and just plain fun. We've rounded up an enticing variety of destinations and travel companies that will get you going, whatever your interests. From culture to conservation and everything in between, the world is full of great escapes.

TRIUMPH

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BARBADOS

The most easterly of the Caribbean islands, Barbados boasts an array of natural and historic attractions, beaches, watersports, golf courses, fine dining and nightlife, friendly people, a range of accommodations, and a wide variety of events throughout the year.

Photo: Barbados Tourist Board

Barbados' Caribbean coastline boasts bountiful fishing, wondrous swimming and boating galore.

Barbados is a land of remarkable contrasts, from its craggy northern coastline, to vast meadows of sugar cane, and on to its serene Caribbean coastline–all on an island only 21 miles long and 14 miles wide. Whether you go for the renowned golf, the unique culture, lots of history, or the spectacular beaches and resorts, Barbados will become a lifetime favorite.

The island boasts everything from architecture that reflects a bygone era to vast caves filled with prehistoric artifacts. The island is also known for distinctive coastlines: the wonderful west coast beaches line the crystal Caribbean waters, while the rugged east coast is a breathtaking stretch ideal for surfing and other watersports. In addition, seafaring tours aboard historic ships, submarine rides, and excursions from private boats can be savored on any shore.

Diverse sightseeing options feature natural attractions, world-class shopping, and lively nightlife. Travelers interested in history, culture, and architecture will enjoy a wide selection of plantation "great houses" on the island. Tours provide excellent insight into the life and times of early settlers.

Despite more than 30 years of independence from Great Britain, Barbados still enjoys a delightful British atmosphere. Afternoon tea remains a custom for many residents and hotel guests. Popular island sports include cricket, croquet, polo, and soccer, as well as renowned golfing, tennis, sailing, diving, and more.

For those looking for great golf while vacationing in the Caribbean, Barbados is the island of choice. With some of the region's most luxurious and breathtaking courses, Barbados has gained unprecedented attention from the golf world.

The infrastructure of the island is technologically advanced, allowing for conventions and meetings to flourish at a host of internationally acclaimed resort hotels. The Sherbourne Centre is known as one of the Caribbean's finest conference facilities, featuring state-of-the-art technology and a wide selection of meeting spaces and services.

The island features an unbeatable range of accommodations, from elegant resorts to intimate guesthouses. Dining in Barbados is a feast for all senses, including fabled folk recipes for flying fish (a culinary specialty) to gourmet experiences that rival the world's finest cuisine.

Proud of their island, Bajans are always willing to share a rich cultural heritage and provide insights into favorite local attractions and finds "off the beaten track." Any visit to Barbados, whether for a leisurely sojourn or business, is an adventurous escape. It's an exquisite island that gracefully blends progress and tradition.

For further information, call (800) 221-9831 or visit www.barbados.org.

BRITISH VIRGIN ISLANDS

The importance of preserving the British Virgin Islands' unique and fragile national parks system, which comprises some of the world's most ecologically diverse environments, as well as the importance of safeguarding thousands of pristine acres that surround the parks, was highlighted earlier this year by a group of influential and environmentally aware Americans.

The visit was arranged by the Trustees of the BVI National Parks Trust, USA, a philanthropic trust. ABC News Anchor Peter Jennings, former CBS Anchor Walter Cronkite, Jean-Michel Cousteau, Lt. Governor Winthrop Rockefeller of Arkansas, actor Cliff Robertson, and editor George Plimpton are some of the well-known

Photo: BVI Tourist Board

Americans serving as Governors on the Board of Trustees. They, along with David Fanning, Remar Sutton-columnist for the *Washington Post,* and Lester Hyman-Washington Presidential advisor, are lending support for the parks to strengthen, expand and preserve them.

Many governors of the Trust toured BVI territory, including the national parks, as part of their board meeting in late-January. "Like so many people in these islands, I have a home near the border of a national park," said David Fanning, founder and executive producer of PBS *Frontline.* "That this land has been saved is an extraordinary gift. There is something fragile about all these places, something so easily lost."

"The land and ocean are inextricably linked together," added Jean-Michel Cousteau, President of

Photo: BVI Tourist Board

The pure joy of life expressed by local children at Anegada, British Virgin Islands.

Ocean Futures and the eldest son of Jacques Cousteau. "Parks are the symbol of this relationship. The British Virgin Islands has an unparalleled opportunity to strengthen and protect its economic future by protecting its parks, and the other land and waters which surround them."

Walter Cronkite, a Trust Governor, avid yachtsman and frequent visitor to the territory for over thirty years, complimented the Government and Parks for their efforts to safeguard the BVI environment. Cronkite said, "The beauty undoubtedly is the greatest asset of the British Virgin Islands, as the majority of citizens seem to agree. It is their support that has made possible the protection of the unspoiled beaches, the glorious hills, the pristine waters of what is certainly one of God's great gifts to humankind."

The BVI National Parks Trust actively manages nineteen national parks, including eighteen terrestrial parks and one marine park. In total, the Parks Trust manages 4,167 acres, or eleven percent of the land and marine area of the BVI.

The National Parks Trust's program consists of five key project areas: Biodiversity Assessment and Management, Management of Terrestrial Parks, Marine Conservation Program, Historical Preservation and Public Awareness, and Environmental Education. For further information on the Trustees of the BVI National Parks, USA, Inc., contact Remar Sutton at offshore-waves@aol.com. The BVI National Parks Trust, (www.bvinationalparkstrust.org,) can be reached at (284) 494-3904 or via e-mail at bvinpt@bvinational-parkstrust.org. The BVI National Parks Trust is successfully preserving a part of the world's natural beauty not only for its residents but also for visitors.

For further information, call (800) 835-8530 or visit www.bvitouristboard.com.

TURKEY

Turkey is a country of diverse scenery, history, monuments, and culture, often making it a challenge to choose which places to visit and experience. However, the nation's extensive Web site (www.tourism-turkey.org) provides a perfect place to start making those choices.

Once there, Istanbul is the obvious place to start and end your tour. It is a fascinating city, rich in historical treasures preserved from the city's days as the capital of the Roman, Byzantine, and Ottoman Empires. There are also many places of natural beauty, like the Istanbul Bogazi (Bosphorus).

Situated between Europe and Asia, Turkey literally links eastern and western history and culture. Turkey is approximately 301,000 square miles and features more than 5,000 miles of coastline. The high plateau landscape is bordered by the Black Sea Mountain chain to the north and the Taurus Mountains to the south. Turkey's diverse terrain includes everything from mountains to steppelands to forests. This means the weather varies greatly by region, ranging from typical Mediterranean climate to long snowy winters.

Turkey is known as "the cradle of civilization" for good reason. Human settlement here has been dated more than 10,000 years ago, and Turkey was home to many famed ancient cultures, including the Hattis, Hittites, Phrygians, Urartians, Lycians, Lydians, Ionians, Persians, Macedonians, Romans, Byzantines, Seljuks, and Ottomans. Following the decline of the Ottoman Empire, the modern democratic and secular Republic of Turkey was founded in 1923 by Mustafa Kemal. Known as Ataturk, an army general and World War I

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hero, Kemal is cited as one of the world's great statesmen. In 1952, Turkey joined NATO and is now a candidate for full membership in the European Union.

Whatever your interest, there's obviously a wealth to see and do. Some of the numerous possibilities include: Istanbul and all its attractions; exotic Turkish cuisine like *meze* and *shish kebab*; world-famous shopping (many come just for the carpets); a wide array of museums and archaeological sites countrywide; sports and recreation opportunities, including lots of watersports, hiking, skiing, and biking; many special festivals and events; the Aegean coastline, with its fun, sun, and lots of history; the Turkish Riviera, on the Mediterranean's Turquoise Coast; the Black Sea's charm and mystery; the volcanic terrain of Cappadocia; eastern Turkey, which is often termed "one huge national park" by adventurous visitors; and numerous other opportunities.

Excellent airline service, friendly and helpful people, and many specialized tour operators, have made Turkey a mesmerizing mosaic for visitors. This vibrant, rich cradle of civilization awaits new visitors from any direction!

For further information, call (877) FOR TURKEY or visit www.tourismturkey.org.

Photo: Ministry of Tourism, Turkey

The fascinating Fish Pond at Sanliurfa, Turkey intrigues visitors.

Norway

Whether it's history, culture, conservation, or the great outdoors, Norway hosts an incredible array of year-round attractions.

The handpicked "adventure roads" give visitors the best insight into the natural highlights of Norway, including the Atlantic Ocean Road, the famous Norwegian Coastal Voyage, and the Flam Railway.

Norwegian cities are cosmopolitan and bursting with character, conservation, culture, and nightlife. Here, tradition sits easily alongside modern lifestyles, and visitors can be assured a warm and friendly welcome from English-speaking locals.

When people think of Norway, many dream of the country's most spectacular asset–the fjords. Formed millions of years ago, the serene beauty of these jagged inlets has impressed and moved visitors for centuries. They cut into the country for miles, surrounded by steep mountains, glaciers, rushing waterfalls, and blooming orchids. Bergen is the gateway to the fjords of Norway, and this charming coastal city and history is not to be missed.

Norway also boasts forests and mountains, lakes and rivers–a vast range of contrasting scenery to suit any taste (with unique and creative cuisine!). From the North Cape, Europe's northernmost viewpoint, to the Lysefjord near Stavanger in the south, Norway is a land of extremes–with everything in between. Walking, cycling, and skiing are all popular outdoor activities.

Whatever your interest or time of year you can visit, Norway is always accommodating. You're sure to enjoy the good life, Norwegian-style!

For further information, call (212) 885-9700 or visit www.visitnorway.com.

Photo: Per Eide/Norwegian Tourist Board

Norwegian Coastal Voyage

Long known as a great way to see Norway, Norwegian Coastal Voyage (NCV) has greatly expanded its line for 2002 by launching two Millennium-class ships, its first escorted cruise tours, enhanced packages for independent travelers, and new expedition cruises to Spitsbergen, Greenland, and Antarctica and the Chilean fjords. An alternative to the traditional cruise experience, Norwegian Coastal Voyage cruises are unique combinations of first-class cruise ships, working ships carrying local passengers and cargo between ports, and a lifeline to remote coastal towns and villages.

This spring, the 643-berth MS Finnmarken and the 674-berth MS Trollfjord will come into service as the first Millennium-class, 15,000-ton ships. NCV's new generation of ships has more berths, deck space, additional suites, and the line's first

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Cappadocia is a surrealist landscape of fairy chimneys hewn from rock and eroded by wind, water and time. For over two millennia local inhabitants have hollowed out caves and secret entrances and used the soft, limestone structures for dwelling stables and storehouses—Only one of the many compelling reasons to discover Turkey this year.

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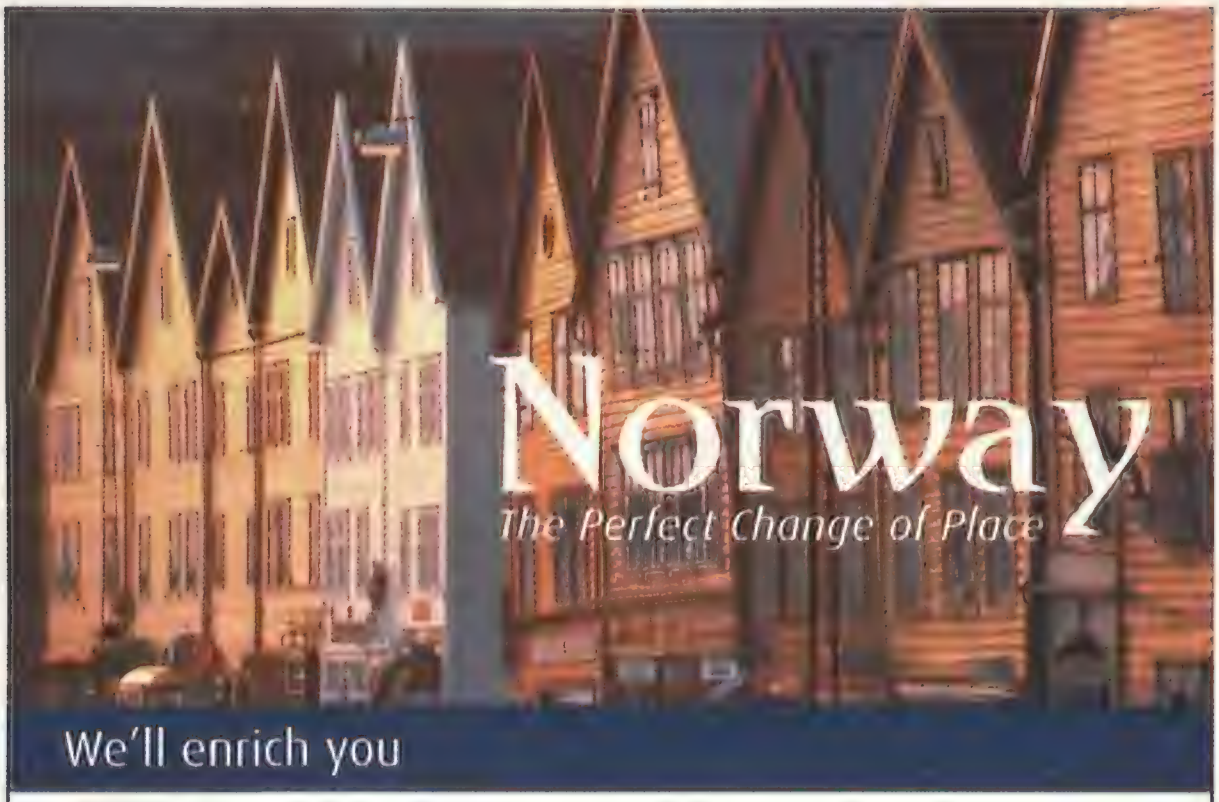

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FINLAND

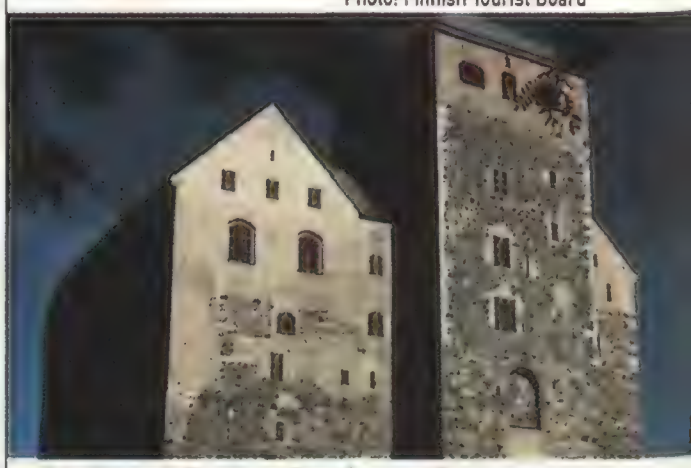
For the traveler who would like to discover an exotic culture and also wants hip nightlife, five-star accommodations, and sophisticated art galleries and museums, Finland is the answer.

Travelers who love opera and also want to discover the definitive Arctic peoples can travel to Finland's Lakelands for the world-famous Savonlinna Opera Festival or to Finnish Lapland, where hiking, mountain biking, fishing, birdwatching, and horseback riding in a pristine environment abound. Temperatures of 72-degrees and 24 hours of sunshine encourage you to "try it all."

Finland is a land of 187,888 lakes, 29 national parks, and 170,000 archipelago islands. While there, you can visit a futuristic, interactive museum of modern art or traverse the King's Road Finland, a route across southern Finland established by emissaries of kings and czars in the Middle Ages. You can savor 770 years of history in Turku and, a train ride away, on the Esplanade in Helsinki, have cocktails in the rooms where nation builders shared their dreams of independence and helped shape a democracy just 86-years young.

You can savor the exotic blend of cultural influences as you walk from cathedral to cathedral. The home of Sibelius is also a mecca for jazz

Photo: Finnish Tourist Board



Medieval Turku Castle on the King's Road, Finland.

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NCV Independent Vacations is the new name for seven air-sea packages with these features: the Oslo Card, a Bergen city sightseeing tour, a three-course dinner in Bergen, and transfers. Value-packed options include a "Scandinavian Capitals" combination and trips to Finland or Iceland.

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lovers. With natural wonders as vast as their Northern Lights, the traveler will still find Finland scaled to the human being. For the endless days of summer's Midnight Sun or the brilliant, culture-rich nights of Fall and Winter, Finland's contrasts are its visitors' riches.

For further information, call (212) 885-9700 or (800) FIN-INFO or visit www.finland-tourism.com.

Egypt

Egypt's ancient history and present-day attractions are a traveler's dream.

Egypt's historical sites are located within less than 5 percent of its landmass, mostly along the Nile's riverbanks. Ancient History is alive throughout Egypt in places like Cairo, Luxor, Aswan, Alexandria, the Sinai Peninsula, and the Red Sea. A trip to Egypt wouldn't be complete without a Nile cruise–the highlights include Luxor, the Temple of Karnak, the Temple of Philae, and the Valley of the Kings.

In addition, golf is now a huge draw, with world-class options in Cairo, Alexandria, Luxor and along the Red Sea.

Egyptians are outgoing, warm, and have a distinct sense of humor, with a respect and enjoyment of foreigners and a deep sense of tolerance for other races, religions, and nationalities.

For further information, call (877) 77-EGYPT or visit www.egypttourism.org.

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This mountaineering program includes luxurious accommodations, three meals daily, equipment rentals, parking, gratuities, and an extensive menu of outdoor activities. Guests can go white-water rafting,

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The Fairmont Banff Springs in Alberta, Canada.

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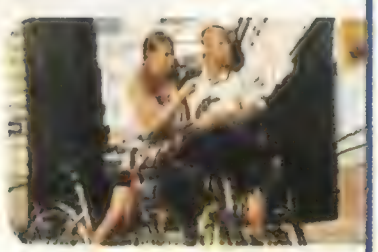

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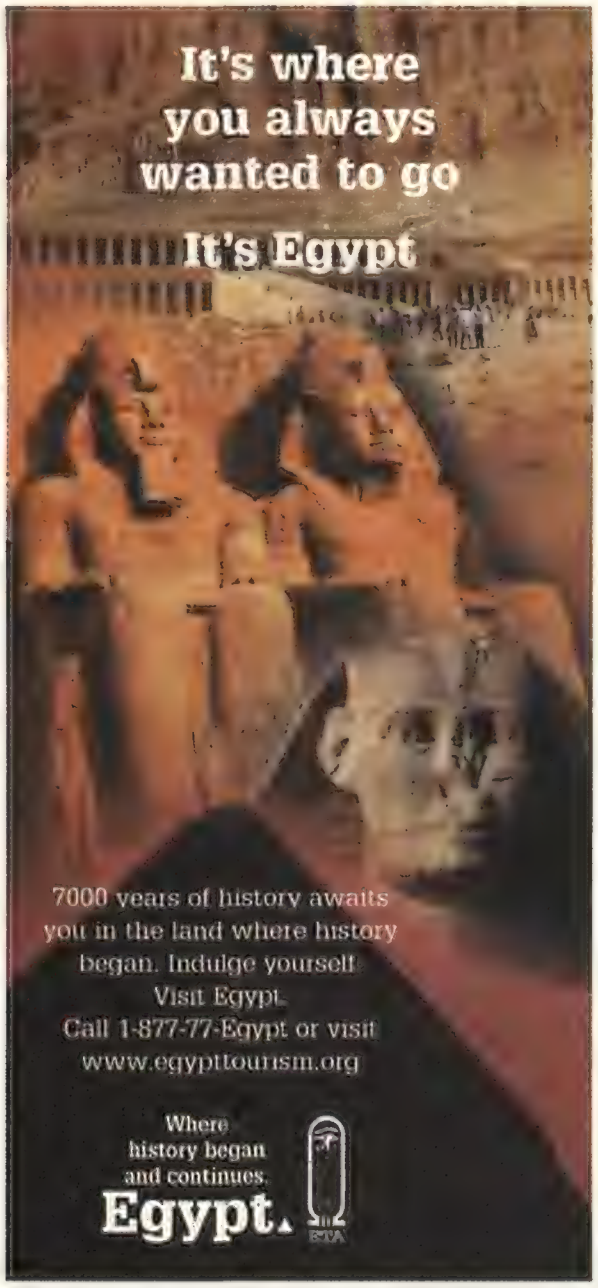
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golfing, mountain biking, canoeing, fishing, sightseeing, and hiking through stunning terrain teeming with the abundant wildlife of Canada's national park system. The Canadian Rockies Experience package ranges from $764 US per room ($1,147 CDN), per night based on double occupancy.

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Wyoming

Incredibly rich in fossil dig sites and paleontology resources, Wyoming has fascinating things to explore.

The Red Gulch Dinosaur Tracksite is the largest in Wyoming and one of only a few in the world from the Middle Jurassic Period (160 to 180 million years ago). Not only are there hundreds of tracks in this 40-acre site, but possibly thousands. Researchers at many colleges and institutions, from Dartmouth College to the Smithsonian Institution, have made trips to the now-famed Red Gulch Dinosaur Tracksite.

Photo: Courtesy of BLM

Exploring a dinosaur fossil dig site in Wyoming.

It's obviously an exciting time to be in Wyoming and, starting in May, the grand opening of Red Gulch makes it even better. Add dinosaur fossil sites to Yellowstone National Park, Devil's Tower National Monument, state parks, hiking, wildlife watching, canoeing and rafting, fishing, and camping, and you are bound to have an amazing Wyoming adventure.

For further information, call (800) 225-5996 or visit www.wyomingtourism.org.

North Carolina

North Carolina has it all–beautiful beaches, mountain vistas, historic heartland towns, golf, kayaking, and hiking. No matter what you choose to do, you'll enjoy North Carolina, where conservation of the past and present makes for a great future to visitors. From celebration of first flight along the coast to Pinehurst's pampering new spa in the Sandhills to the ancient Great Smoky Mountains, North Carolina has it all.

The frequent first stop is the 300-mile-long barrier islands chain. The welcoming beacons of the coastline's lighthouses serve as a reminder of the state's hospitality, history, and conservation. The coast's pounding surf is an exciting venue for sea kayaking, surfing, and sailing.

This year-and next, visitors will be flocking more than ever to North Carolina to share in a wide variety of activities celebrating the 100th anniversary of the Wright Brothers' historic flight. Statewide activities, which will serve as a cornerstone of the national celebration, range from major air shows to centennial galas. The festivities will culminate on the Outer Banks on December 17, 2003, when EAA and Ford Motor Company will re-create the Wright Brothers' historic first flight using an exact reproduction of the 1903 Wright Flyer. Further information about these exciting events is available at: www.firstflightnc.com; www.firstflightcentennial.org; and www.countdowntokittyhawk.com.

For further information, call (800) VISIT NC or visit www.visitnc.com.

Photo: NC Division of Tourism

The breathtaking view at Chimney Rock Park, North Carolina.

Amelia Island Plantation

Amelia Island Plantation, the 1,350-acre resort in Florida, sets the standard for innovative barrier island developments.

From its beaches, visitors can walk inland (via a boardwalk) across the majestic sea oat-covered sand dunes into a rolling canopy of wind-sculptured live oaks–a sanctuary for plants, animals, and birds.

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Tours like "Beachside Naturalist Tour" and "Edible Plants and Wildflowers and Birds of Amelia Tours" give hands-on experience to both children and adults alike.

For further information, call (800) 874-6878 or visit www.aipfl.com.

Florida Keys

A necklace of islands just south of Miami, the Florida Keys are connected by the Overseas Highway's 43 bridges over the Atlantic Ocean and Gulf of Mexico. Each Florida Keys region has its own special flavor including historic museums, restaurants, fishing, diving, watersports, and boutique-style shopping.

Soon, the Florida Keys will be home to one of the world's largest artificial reefs. With the sinking of Spiegel Grove off Key Largo in the Florida Keys National Marine Sanctuary, a unique six-year conservation effort will come to fruition. Local dive operators expect that the Spiegel Grove will attract 60,000 to 70,000 divers a year.

For further information, call (800) FLA-KEYS or visit www.fla-keys.com.

San Diego

Long known as a major city with resort appeal, thanks to near-idyllic weather and 70 miles of beautiful beaches, San Diego is home to sophisticated cultural, culinary, and luxury travel.

The free *San Diego Art + Sol* magazine provides full-page profiles of more than a dozen leading San Diego arts and cultural institutions, including Broadway/San Diego; The Globe Theatres; La Jolla Chamber Music Society; La Jolla Playhouse; Lamb's Players Theatre; Mingei International Museum; Museum of Contemporary Art, San Diego; Arts; Reuben H. Fleet Science Center; San Diego Museum of Art; San Diego Opera; and the Timken Museum of Art.

The free magazine can be ordered by calling (800) 270-WAVE. Another way to explore San Diego is through www.sandiegoart-andsol.com, where guests can review the region's most up-to-date cultural events listings, along with suggested outstanding itineraries.

San Diego's culture is definitely matched by its cuisine, where some of the nation's top chefs cook up a creative storm. Culinary experts around the world agree that San Diego is an ideal gourmet location. In San Diego, food aficionados have one of the country's hottest new dining destinations to discover.

For further information, call (619) 236-1212 or visit www.sandiego.org.

Rhode Island

Blessed with an abundance of vibrant neighborhoods and 17th- and 18th-century architecture, Providence has long been considered a "walking" city. This status has been greatly enhanced by the recent addition of Waterplace Park & Riverwalk, the Fleet Skating Center, and mall Providence Place.

Legendary Newport's stunning coastline, glittering harbor, and charming colonial seaport have lured the world for more than 150 years. This is the home of fabled mansions, world-class yachting, the International Tennis Hall of Fame and Museum, diverse music and film festivals, fine dining, and spirited nightlife.

For further information, call (888) U-UNWIND or visit www.visitrhodeisland.com.

International Wildlife Adventures

Each fall, along the west shore of Canada's Hudson Bay, polar bears gather along the shore waiting for it to freeze so they can begin their annual hunt. International Wildlife Adventures and their Tundra Buggy™ are always there.

With more than two decades of experience, International Wildlife Adventures is expert at creating wildlife viewing and photography tour packages. From October through November, they offer more tours to view the polar bears of Churchill than any other company.

International Wildlife Adventures offers trips throughout the world in addition to their famed polar bear excursions, including varied offerings in the Galapagos Islands, Peru, and Belize.

For further information, call (800) 593-8881 or visit www.wildlifeadventures.com.

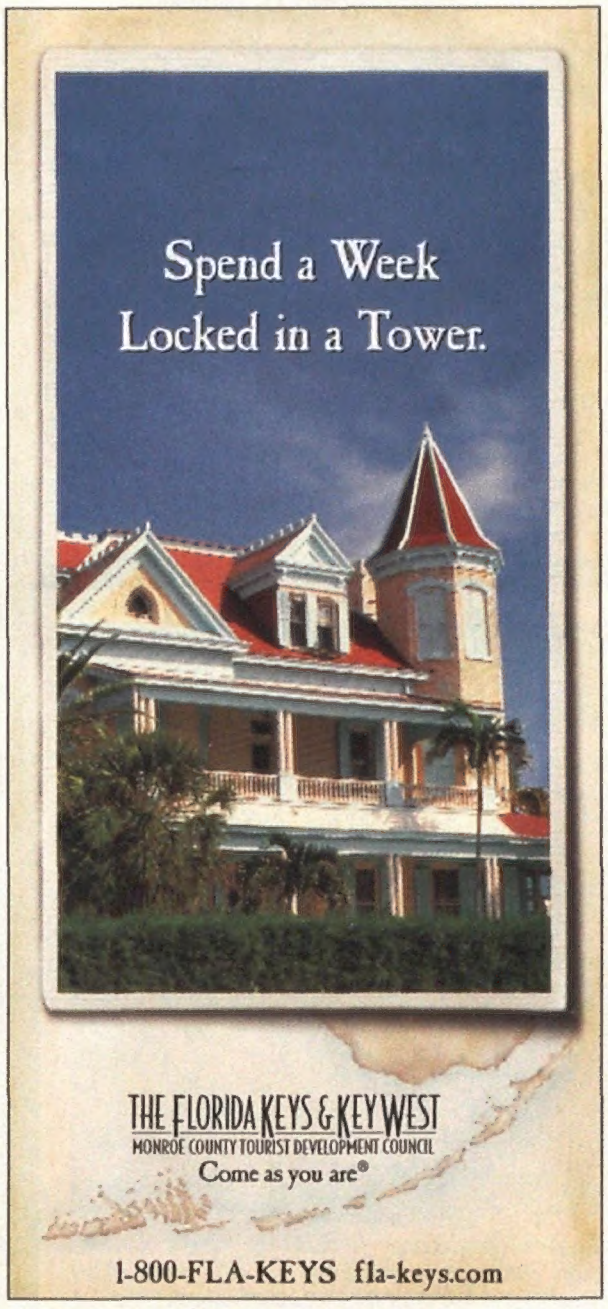
Photo: Costa Rica Tourist Board

Costa Rica's rich artistry and culture.

Costa Rica

If you want a wide variety of exotic options packed into a small country, then go to Costa Rica. Covering an area of just less than 32,000 square miles (about the size of West Virginia), Costa Rica is internationally recognized for the diversity and density of its natural resources and for the fabled kindness of its approximately four million inhabitants.

The small, mountainous country of Costa Rica boasts an ever-changing panorama of steaming volcanoes,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rain forests, lowland jungles, Pacific surf and Caribbean beaches that offer visitors a diverse selection of travel experiences unmatched in the region. The 700-plus miles of coastline offers world-class sport fishing and surfing, while divers can choose sites with huge schools of fish, rocky coral and undersea canyons.

While presenting .03 percent of the planet's surface, Costa Rica is home to 6 percent of the world's biodiversity, including more than 800 bird species, 200 mammal species, 200 reptile species and 13,000 plant species. Costa Rica has more than 400 trained natural history guides to help visitors identify and interpret the biodiversity.

Travelers to Costa Rica can select from a number of experiences, including: the Central Valley, home to the country's capital, San Jose; the tropical Caribbean Coast; the sunny North Pacific area; the Mid Pacific, home to many favored surfing points; the South Pacific, an area known for its biodiversity and indigenous culture; and the Northern Plains, the site of several majestic volcanoes.

To emphasize that Costa Rica is a convenient, tranquil, and diverse destination, the Costa Rica Tourist Board (ICT) launched a multi-faceted initiative to encourage North American travelers to visit Costa Rica. "Costa Rica has a long-standing and close relationship with American travelers–in fact, half of the one million-plus visitors to our country each year are from the U.S.," says Costa Rica's Minister of Tourism, Walter Niehaus.

The U.S. effort is part of a larger program being undertaken by the ICT that includes working with local tourism-related businesses to reduce rates; working more closely with tour operators, airlines, and other travel partners; and increasing par-

travel mart

ticipation in travel and tourism events. Tourism is Costa Rica's number one growth industry, accounting for 44 percent of all new jobs generated in the last 10 years. As the pioneer of ecological tourism in the Central American region, the country has taken strategic steps to preserve and protect its biodiversity–currently 30 percent of its territory is under some level of protected status.

For further information, call (800) 343-6332 or visit www.tourism-costarica.com.

International Wolf Center

A collaboration between *Smithsonian* Magazine and the United States Tour Operators Association (USTOA) resulted in the First Annual *Smithsonian* Magazine/USTOA Conservation Award this past December. After esteemed judges from the publishing, tourism, and science worlds determined five finalists from numerous nominations, *Smithsonian* Magazine readers picked the winner.

Photo: International Wolf Center

The $25,000 award went to the International Wolf Center in Ely, Minnesota. It is the world's premier organization dedicated solely to the conservation of the wolf. A nonprofit group, the Center supports wolf conservation by teaching the public about the wolf's biology, its associations with other species, and its dynamic relationship to humans.

For more information about the International Wolf Center, go to www.wolf.org, and for the USTOA, go to www.ustoa.com.

Written by: Lynn Seldon, Travel Writer and Photographer, Richmond VA

Front cover photo: Terje Rakke/Norwegian Tourist Board. Inset shots courtesy of, top to bottom: Costa Rica Tourist Board, Cruise West, Costa Rica Tourist Board, International Wildlife Adventures, San Diego Convention & Visitor's Bureau.

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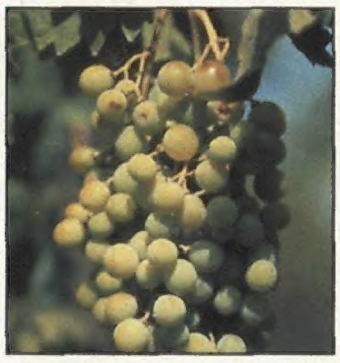

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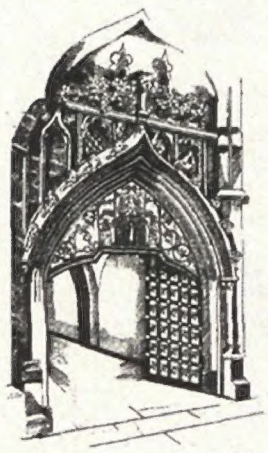

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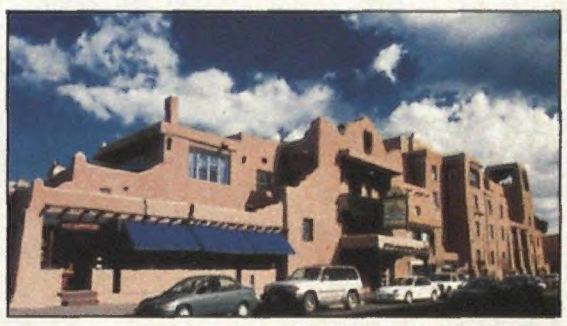

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